NATIONAL FISHERMAN

APRIL
1960

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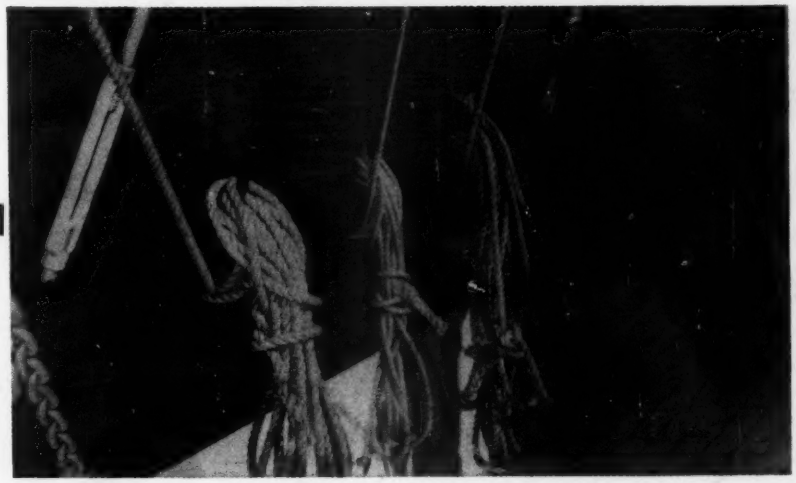

COLUMBIAN

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Yacht Sisal

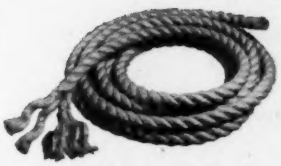
COLUMBIAN proudly presents the newest member of its crew of fine ropes, the COLUMBIAN YACHT SISAL.

Light, handsome and easy to handle, the new YACHT SISAL is a full 20 percent stronger than any previous sisal rope and costs far less than many brands of Manila with similar breaking strengths.

COLUMBIAN rope experts developed a new construction for sisal rope and new lubricants as well. Combined, these two new exclusive COLUMBIAN features are responsible for the new, high breaking strength of YACHT SISAL.

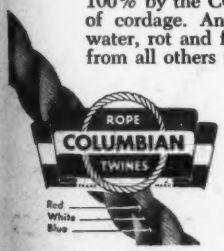
Now, YACHT SISAL "on the average is as strong as Federal Specification TR-605 for Manila." However, COLUMBIAN Tape-Marked Pure Manila Rope exceeds substantially these strength figures.

Only COLUMBIAN can offer you YACHT SISAL and back it 100% by the COLUMBIAN reputation for the finest in all types of cordage. And, the same fibre-deep chemical treatment for water, rot and fungi that has distinguished COLUMBIAN ropes from all others is lavished on YACHT SISAL as well.



A NEW 100% Sisalana rope with a softer construction and a firmer foreturn that offers greater resistance to kinking and hockling than ever before.

Available NOW in all 3 strand sizes up to and including ¾" diameter. Standard Put-ups including popular Colpack coils. Ask your dealer for YACHT SISAL.



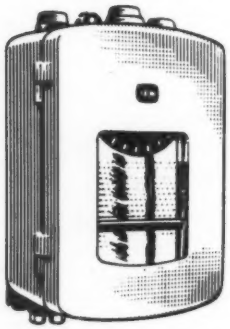
COLUMBIAN Rope Company

Auburn, "The Cordage City," N. Y.

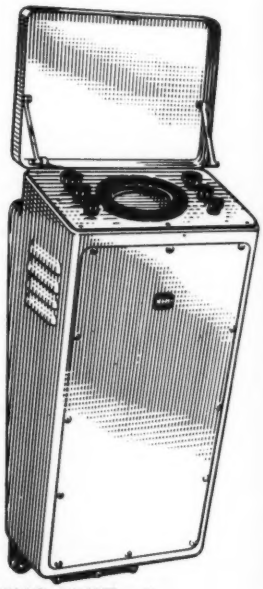
KELVIN HUGHES DEPTH SOUNDERS

Are Designed for Fishermen

Vertical and Horizontal Sounding—Recording and Viewing Types



Kelvin Hughes echo sounding instruments are designed for one particular purpose—to aid commercial fishermen. They are the result of 20 years' design experience and the most modern engineering facilities. They have set new, unsurpassed standards of performance in positive detection of fish.

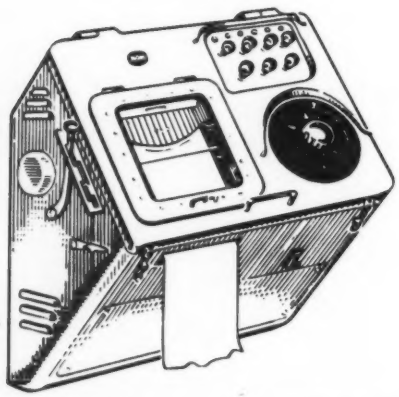


▲ KELVIN HUGHES "WHITE LINE" RECORDER

A new type recording echo sounder which details fish on or near the bottom. The presence of fish shows up clearly, since the white line follows the black sea bed contour line and provides a sharp color contrast. It shows echoes from low-lying fish which sometimes merge with the sea-bed echo in conventional sounding gear. The White Line sounder records fish at all depths.

KELVIN HUGHES VIEWING UNIT ▲

An echo vision instrument (scale expander) for use with the Kingfisher Recorder. A 5" cathode ray tube gives enlarged visual presentation of any selected 5, 10 or 15 fathom layer of water under the vessel. Retractable visor is provided for daylight viewing. Makes it easy to find isolated fish or scattered schools close to the bottom.

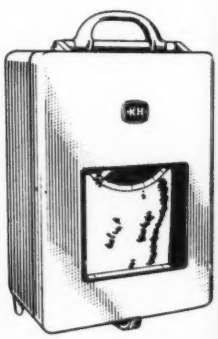


▲ KELVIN HUGHES FISHERMAN'S ASDIC

A completely automatic horizontal echo-sounding/echo-ranging instrument for locating schools of surface and mid-water fish. Available as indicating or recording type. Also can be used as White-Line recorder to locate bottom fish, thus providing two-in-one service.

KELVIN HUGHES PORTABLE RECORDER (White Line) ▼

Specially designed for small fishing boats; compact and rugged. The MS30 Recorder is completely water-tight, weighs only 50 lbs., and operates on 12, 24, 32 or 36 volts. It is available in three scale ranges: 160, 80 and 320 fathoms. This machine will effectively asdic 1500 feet from the operator. The linkage is expandable and is hand operated for asdic work. For location of ground fish, the White Line can be turned on.



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The Lookout

Exploiting Ocean Resources

Some thought-provoking comments on the orderly exploitation and control of the world's ocean resources were made at the International Oceanographic Congress held last year at the United Nations. Speaking at the meeting, Dr. Columbus O'D. Iselin of the Woods Hole Oceanographic Institution stated:

"So rapidly is science advancing these days that in a relatively few years it can be expected that we will know enough about the seas for engineers to begin to make this knowledge of practical benefit to mankind on a considerable scale.

"It is obvious, I think, that we will soon be able to exert a significant measure of control on climate. We certainly are in a position today to suggest means whereby the winds could be aided in the overturn of the oceans so that the total biological resources could be increased. After all it is a great deal easier to turn over water than to plow the land.

"Thus it is no longer necessary to suppose that fishermen must always remain hunters rather than farmers. As scientists we are glad that until now nobody has seriously suggested that we begin tinkering with nature, but this is something that could obviously happen rather quickly, provided there were some agreed principals of control and monitoring. The disposal of radioactive wastes at sea is a good case in point.

"The sea is the only part of the earth that nobody claims to own. The old idea of the freedom of the sea has well served its original purpose. It arose because until now the most important characteristics of the oceans were that they provided for cheap world-wide transport and for national defense. I am afraid that the idea of the freedom of the seas is somewhat incompatible with their efficient and wise exploration.

"Inevitably it will be practical to set up the equivalent of fences in the sea so as to regulate the goings and comings of fish. It will be possible to remove the "weed" forms and to encourage the production of desirable food fishes. But probably nothing will happen in such directions on a large scale until it is decided who will have a right to reap the harvest.

"This is such a knotty problem that I do not foresee any widely acceptable solution, but some influential agency should be working on it, both from the standpoint of conservation and from that of efficient exploitation."

NATIONAL FISHERMAN

The Fishing Industry Magazine

Vol. 41 No. 3 April 1960

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REMINDER TO FISHERMEN

Careful, please, of underseas cables

A plea to fishermen for caution in areas where underseas cables lie on the ocean floor is brought out in the Bell System exhibit at the National Fisheries Institute Convention in Miami Beach.

To show the damage that can and has been done, a piece of cable—frayed and torn by a trawler—will be displayed at the exhibit. It shows the dangers of fishing gear getting tangled with cables and causing breaks.

When this happens, what results?

Fishermen suffer loss of gear, loss of catch, loss of time.

The public suffers because of delayed overseas communications. Hundreds of thousands of dollars may be involved.

Also to be seen at the exhibit is the story of a cable-laying project, from planning and manufacturing to operation and maintenance. Visitors to the display get a first-hand glimpse of these vital life-lines of communications. An animated map indicates the cable areas in the northern part of the Western Hemisphere.

Look for the
BELL SYSTEM EXHIBIT

If you're going to the National Fisheries Institute Convention, The Fontainebleau, Miami Beach, Florida, April 30-May 3, look for the Bell System exhibit, Booth 11. See what goes into laying an underseas telephone cable.

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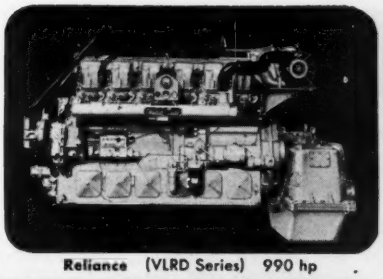
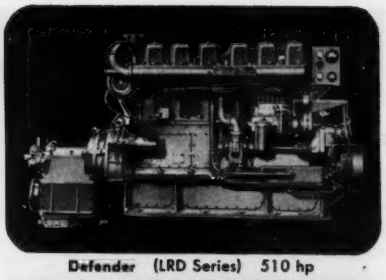
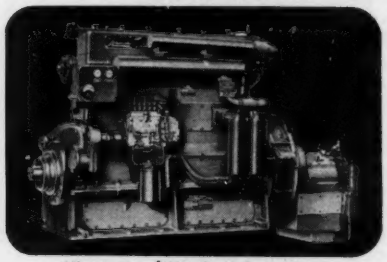


Reliance (VLRD Series) 990 hp



Defender (LRD Series) 510 hp



Wanderer (NKD Series) 315 hp

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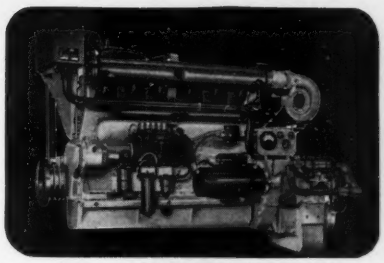
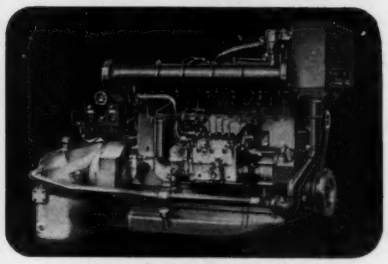
- *Reliability*
- *Simplicity*
- *Smoothness*
- *Economy*



Resolute (WAKD Series) 290 hp



Vigilant (148-D Series) 195 hp

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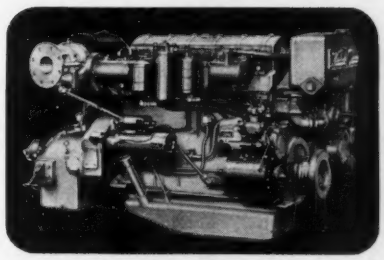
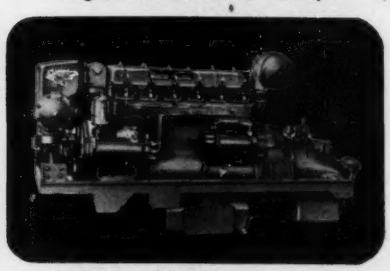
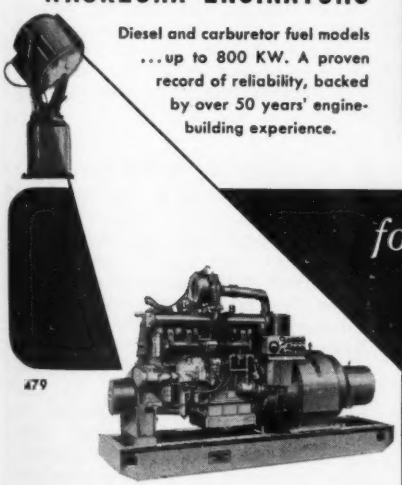


Cutwater (135-D Series) 120 hp



Navigator (197-D Series) 85 hp



479

for fishing vessels ... tugs ... towboats and work craft of all types

Engine	Type	Cyls.	Bore & Str.	Displ.	24-Hr. Max Rating
RELIANCE	Normal	12	8½ x 8½	5788	725 hp @ 1215 rpm
	Turbo	12	8½ x 8½	5788	990 hp @ 1215 rpm
DEFENDER	Normal	6	8½ x 8½	2894	335 hp @ 1215 rpm
	Turbo	6	8½ x 8½	2894	510 hp @ 1215 rpm
WANDERER	Normal	6	7 x 8¼	1905	240 hp @ 1215 rpm
	Turbo	6	7 x 8¼	1905	315 hp @ 1215 rpm
RESOLUTE	Normal	6	6¼ x 6½	1197	195 hp @ 1600 rpm
	Turbo	6	6¼ x 6½	1197	290 hp @ 1600 rpm
VIGILANT	Normal	6	5¼ x 6	779	150 hp @ 1800 rpm
	Turbo	6	5¼ x 6	779	195 hp @ 1800 rpm
CUTWATER	Normal	6	4¼ x 5	426	100 hp @ 2000 rpm
	Turbo	6	4¼ x 5	426	120 hp @ 2000 rpm
NAVIGATOR	Normal	6	4 x 4	302	65 hp @ 2000 rpm
	Turbo	6	4 x 4	302	85 hp @ 2000 rpm

WRITE FOR DESCRIPTIVE LITERATURE

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FISHERY PROGRESS

► Subsidy Bill Compromised

Conferees of the House and Senate have arrived, in principle, on a compromise of the two Houses' versions of the Federal Fisheries Assistance Act, which would provide a Federal subsidy in the construction of fishing vessels, at a rate of 2½ million a year for three years.

The Senate conferees went along with the House version to limit subsidies to vessels in a segment that had been denied Escape Clause relief, but added vessels in a segment of the industry which cannot legally seek Escape Clause relief because a tariff concession has not been granted, when that segment of the industry in the opinion of the Secretary of the Interior would have met the criteria for Escape Clause relief if it could have sought such relief. This could possibly open the door for tuna and shrimp vessels, for example.

The conferees also determined to keep in the compromised bill the provision for approval for vessel construction plans by the Department of Defense. The compromised version is expected to get to the floors of both Houses in the near future.

► Interior Appropriations

The Senate has passed and sent to conference a bill making appropriations for the Department of the Interior for the fiscal year 1961. The bill was passed by the House on February 16.

The Senate version would provide $9,812,000 for the Bureau of Commercial Fisheries, which is an increase of $802,000 over the amount approved by the House and requested in the President's budget.

Included in the increase is $160,000 for a continuation of the South Atlantic exploratory program (from Cape Hatteras to Cape Canaveral) begun last August. An increase of $642,000 was included for the following research programs; pesticides research $67,000; industrial fisheries research (menhaden, sardines and herring), $175,000; and tuna fisheries investigations $400,000.

► Loans to Fishermen

Federal loans totalling $8,508,690 were used by the nation's fishermen to modernize and replace some of their boats and equipment last year, Senator Warren G. Magnuson of Washington reported.

Figures released by Magnuson showed 124 fishermen in the New England area obtained loans totalling $3,651,000. California ranked second with 55 loans for $1,170,000, he said.

Other totals listed by Magnuson include: South Atlantic and Gulf coasts, 58 loans for $1,516,000; the Pacific Northwest, 76 loans for $918,000; Alaska, 43 loans for $271,000 and Hawaii, eight loans for $83,000.

Ross L. Leffler, Assistant Secretary of the Interior, told Magnuson there is $2,633,223 in appropriated funds to cover applicants for loans being processed, and $4,328,109 available for new applications. The money may be used to rebuild boats, to buy new equipment and replace worn-out engines.

► Shrimp Import Bills

Congressman Herlong (Fla.) has introduced a bill to amend the Tariff Act of 1930 to provide for the establishment of country-by-country quotas on the importation of shrimps and shrimp products, and to impose a duty on all shrimp imported in excess of the applicable quota. This bill is a revision of one Herlong introduced last year. The revised bill would establish quotas for processed shrimp products as well as unprocessed shrimp.

A similar bill (Ellender) has been introduced in the Senate. Imports of unprocessed shrimp in excess of the quotas would be subject to 50% ad valorem duty, while processed shrimp would pay a 25% ad valorem duty within quotas.

► Fish Import Quota

The Customs Bureau has established a quota of 36,533,173 pounds for low duty importations of fresh or frozen fish fillets during the 1960 calendar year.

Under the General Agreement on Tariffs and Trade, groundfish fillet imports up to 15 percent of the average domestic consumption in the three preceding years pay a duty of 1⅞ cents a pound. Thereafter the rate is 2½ cents a pound.

A notice in the Federal Register said the Customs Bureau has determined that domestic consumption in the years 1957 through 1959 was 243,554,489 pounds. It said, therefore, that the quantity which may be imported in 1960 at the reduced tariff rate is 36,533,173.

In previous years however, frozen fish blocks used principally to produce fish sticks have been included in the import quota calculations, coming in at the 1⅞-cents-a-pound rate.

Under a Customs Bureau ruling of July 15, 1959 these blocks now are imported at a flat 1-cent-a-pound rate and are excluded from the fillet import tariff quota calculations. This means that more fillets may be imported at the lower rate.

► Subsidized Trawler Proposed

A proposal for construction of a large "supertrawler" for the Bering Sea will be sent to Congress by June, members of a Pacific Northwest fishing industry committee said recently. The committee has held several meetings to discuss plans for the government-supported operation.

The program will cover construction details, plans for using the trawler for research as well as fishing, and suggestions for marketing the catches.

James G. Talbot, committee chairman, said such a trawler is needed in the Bering Sea to compete with Russian fishermen and guard America's historic fishing rights in the area.

Committee members recently viewed a Russian film showing operations of Russia's 240-ft. Pushkin-class trawler-factory ships, which have been observed in the Bering Sea.

The film was obtained by the regional office of the Bureau of Commercial Fisheries. "After seeing the film we concluded that the United States can and should be doing the same thing in the Bering Sea," Talbot said.

► Bill to Reapportion Funds

In March, Congressman Rivers of Alaska introduced a bill which would provide that 50 percent of the Saltonstall-Kennedy funds be withdrawn from projects under the direction of the Fish & Wildlife Service and transferred to the states which manage a commercial fishery —to be spent on any biological, technological, or other research projects pertaining to the commercial fisheries of such participating states.

► To Inspect Jap Oyster Grounds

It is expected that an inspector from the U. S. Public Health Service (perhaps accompanied by a bacteriologist) will spend one month inspecting oyster grounds of Hiroshima Bay and the processing procedures for packing frozen oysters. There are no plans to have the inspector survey any areas outside of Hiroshima.

The United States inspector is being invited in connection with the revision of Hiroshima's prefectural ordinance on oyster sanitation. After the revision, oysters from other than designated areas within Hiroshima Prefecture cannot be exported.

The inspector's visit to Japan and the revision of the prefectural ordinance are being promoted by a Japanese fishing company which is building a new oyster packing plant at Hiroshima. The plant is expected to pack frozen oysters.

New life for the
FREELANCE
with CAT Diesel Power

New power put new life in the 86 ft. iron hull, two masted schooner—the "FREELANCE." Formerly, this veteran vessel, operated by Foreign Property, Ltd. of Nassau, B.W.I., was equipped with two 40 h.p. diesels which had seen better days. Speed was not more than 3 or 4 knots an hour. Today, the "FREELANCE" operating out of Antigua is available for charter trips anywhere in the Caribbean, regardless of trade winds.

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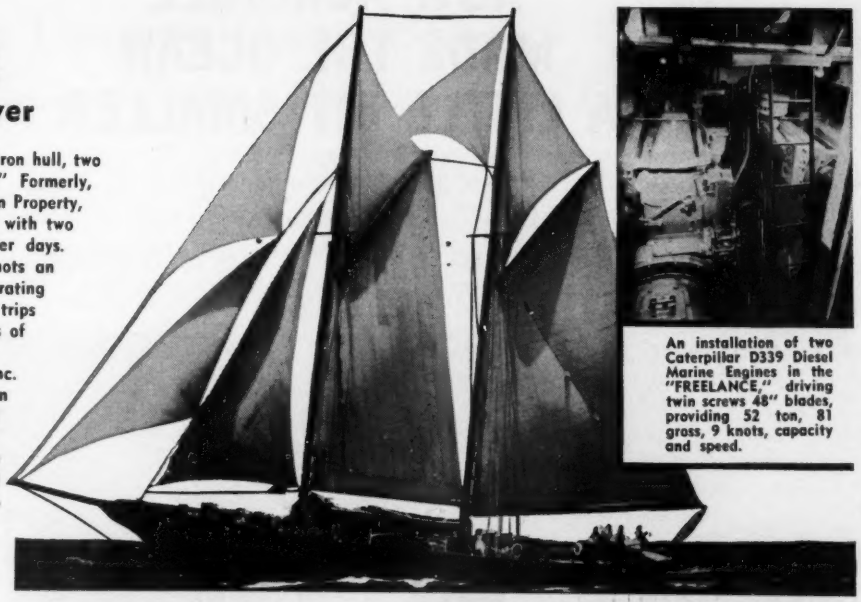

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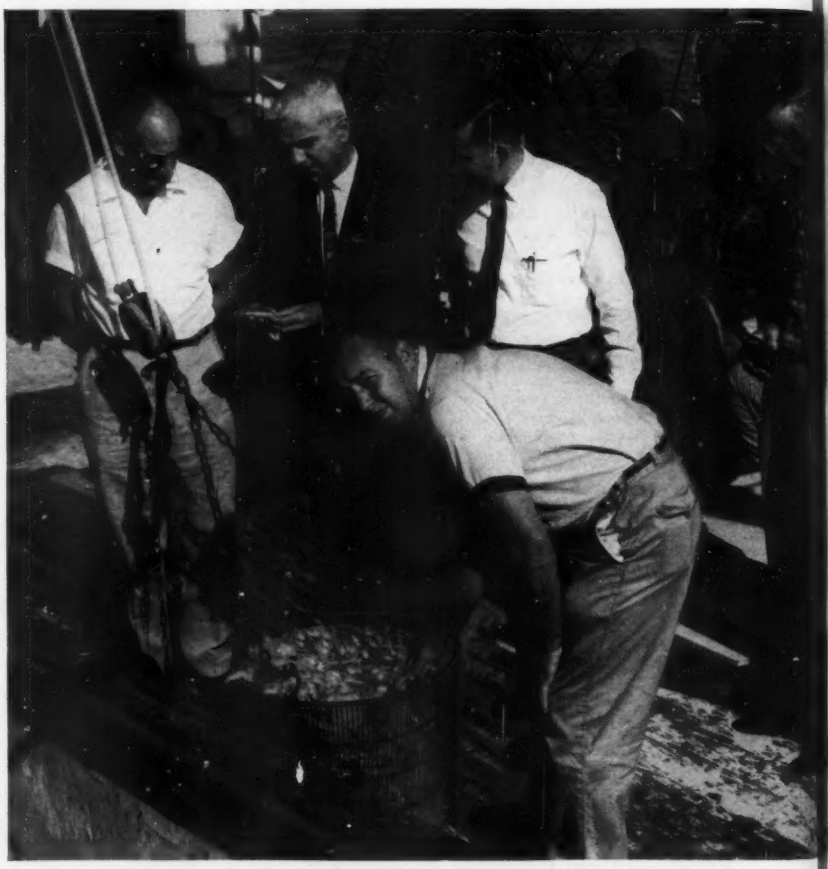
HOW ACRONIZE MADE THE OCEAN A LITTLE BIT SMALLER

Read how five members of the Fort Myers Shrimp Producers Association used Acronized ice to bring fresh shrimp from the coast of Honduras

New shrimping sites are hard to come by. Often, when a new bed is discovered, it's too far away from established ports to get a good catch and get it back without excess spoilage. That's why it was big news recently when five boats docked in Fort Myers, and unloaded top quality *fresh* shrimp caught off the coast of Honduras. All five boats had one thing in common: all had taken aboard ACRONIZED® ice!

Here's what one of the five—boat owner and shrimp producer Frank Haneburger – has to say about the Honduras shrimping site and ACRONIZED ice, "I've been producing shrimp for over 30 years. To say I'm pleased with the shrimp we landed from Honduras is putting it mildly. This shrimp was of the highest quality with no trace of spoilage or sourness even after two weeks of fishing. You can bet I plan to use ACRONIZED ice for my future trips."



Representatives of American Cyanamid Company and Fort Myers Shrimp Producers Association examine Acronized shrimp caught off Honduras.

What is Acronize?

ACRONIZE® is an antibiotic made especially for food processing. It has received government clearance for use on fresh-caught whole, headed and gutted fish, shucked scallops, and unpeeled shrimp.

How Acronize works

ACRONIZE slows down the multiplication of bacteria that cause souring, sliming and eventually complete spoilage. Tests on a wide range of species prove ACRONIZE keeps fish, scallops and shrimps fresh and firm 30 to 100% longer.

How Acronize is used

Because ACRONIZE does *not* eliminate refrigeration, but enormously increases its efficiency, it is incorporated in the ice. Standard icing procedures are followed.

For more information about ACRONIZE, see your ice supplier, or write: American Cyanamid Company, Agricultural Division, New York 20, New York.

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CYANAMID SERVES THE MAN WHO MAKES A BUSINESS OF AGRICULTURE

Fishing Boats Deserve Good Upkeep

Timely Attention to Small Details Can Forestall Major Repairs

By Capt. Elwell B. Thomas

Recently I have observed the replanking of a small commercial vessel and when I made comment to the yard foreman that the planking job was not of very good quality, he replied that it was only a workboat and would not require the best quality in workmanship and materials.

The point of view of that yard foreman is rather common, and this writer feels that it is long past time that such an attitude be relegated to the junk pile.

While it is very true that the owner of the average fishing or workboat may not feel that he can afford the best, still it has been proven over and over again that neither he nor anybody else can afford the poorest.

There are many ways in which one can cut corners in the maintenance cost of either workboat or yacht, and there are other ways of doing so that prove more costly, over a period of time, than doing the job right in the first place.

Certainly poor planking and poorly fitted planking will not render the years of satisfaction or even insure any degree of safety, that a good planking job with first class materials will. In addition to the safety factor, a decent planking job will require less attention to caulking, painting, refastening and pumping than a job of inferior quality. Also, a future replanking job will be much less a probability, and if it does become necessary, it will be a much easier and better job because of properly fitted plank with proper seams.

Quality of Metals Important

Another example of being penny wise and dollar foolish in boat construction and repair will frequently be the use of inferior metals, as for instance, the use of galvanized iron for stove pipes and "Charlie Nobles". By using galvanized iron, replacements must be made about once a year or so, whereas by using stainless steel of the proper type, the job will last for many years and will be well worth the difference in cost.

This also holds true of the foolish practice of lining ice boxes with galvanized iron—another item where the chief expense is labor and the material cost is comparatively low. One might also cite the use of galvanized iron for gussets in dories, as more dories probably have given up the ghost through rusty gussets than through any other cause.

The practice of using putty or seam compound over fastenings instead of using bungs, particularly if the fastenings are galvanized, is a very foolish saving. The slight saving affected by the use of cut-rate paints and varnishes is never practical over a long period. The owner of a boat or vessel is only kidding himself if he thinks that all paints come out of the same spigot at some mysterious huge plant, and that the paint prices are adjusted to match whatever the manufacturers think the trade will bear. Good quality paints will always pay off through longer life, better protection, better appearance, and ease of refinishing when this becomes necessary.

Many items of used gear and used fittings are perfectly suitable for workboat use and on occasion they may be better than new materials which have been manufactured purely as a price proposition. Frequently, in years gone by, I have purchased a used fitting in good condition that may have been used aboard some yacht, that was far superior to that which was available new, or at least available in the price range I could afford.

In looking over old fittings in the back shed of a boat yard, one may occasionally find something made especially for some yacht, which with a little ingenuity, can be easily adapted to the desired purpose where it will serve extremely well. It would probably be surprising, if one could count the number of old Herreshoff and Lawley fittings that are still serving boat owners today after having been used previously on half a dozen other boats.

Fishing boats hauled out at Monterey, (Calif.) Boat Works.

Wood Condition Stressed

One should be cautious about using any old wood for making the simplest kind of repair on deck, because the wood may be poor of quality with the germs of decay already at work and ready to spread their activity to sound wood. One should be just as careful in choosing lumber for a workboat as he would be in choosing lumber for a fine yacht. A workboat can rot just as fast, and the average owner can ill afford to throw his money around replacing unnecessary rot.

The fit of joints in woodwork is equally as important on a workboat as on a yacht, if the woodwork is in any way subject to rot. True, the cabin joinerwork need not be beautifully fitted and of exotic woods in most workboat construction, but slap-dash fitting of wooden members on deck, hull and houses is inexcusable.

Likewise, one should be extremely careful to thoroughly bed all fittings on the deck of a workboat in a thorough manner rather than fasten it down in any old way because it's only a workboat. Before I sold my boatyard, I frequently had trouble with a certain workman whose idea of bedding a fitting was to spread the bedding compound about as thin as he would butter bread. As a result, if it was necessary to lift the fitting afterward, one would always find that it was only bedded in a high spot here and there. My plan has always been to just lather the bedding compound on, and then when the fitting is secured the compound gushes out all over the place. Messy, yes, but the adjoining members are protected against the intrusion of water, and that is what counts.

It is well for the master of a workboat to learn to be a decent painter. If the vessel is large enough to carry a crew, it is urgent that the master train the crew in proper painting. Many commercial fishing vessels have required rebuilding, or have gone to the graveyard long before their time, because there was not a decent painter aboard—one who knew how to prepare a surface properly to see that it was dry before painting, or who realized the importance of working the paint thoroughly into little cracks and crevices.

(Continued on page 34)

Outboard Power for Small Fishing Craft

Specially designed outboard boats developed for variety of fishing

The advent of the 25 hp. outboard motor, with its separate fuel tank and neutral and reverse gear, has given considerable impetus to the adaption of the outboard to fishing boats, and to the building of many hundreds of outboard-powered commercial craft since World War II. According to David D. Beach, naval architect from Waukegan, Ill., the tilting and swiveling feature of outboards has made them particularly desirable for many small commercial craft.

Feats of performance and endurance by the outboard motors have proven well their reliability. The advantage of outboard motors is further stressed by the great number used successfully by commercial fishermen in a variety of fisheries throughout the United States and foreign countries.

When discussing various types of fishing craft readily adaptable to outboard powering, Beach gives little consideration to the use of standard transom craft, because the outboard was first developed for them. However, such craft are representative of many outboard-powered boats used to make a living by fishermen, especially in the lobster, shrimp and scallop fisheries. The design of other small, light-weight, specialized craft is discussed by Beach, with emphasis on the facility of operation through the use of outboard motors.

The Florida Mullet Skiff

For many areas in the world abounding in placid waters, where large catches may be made close to the fisherman's base of operations, a small boat suitable for gillnetting seems to be of first importance. Such a craft, the Florida mullet skiff, is plentiful in the inland waterways of southern states, from southern Georgia around the Florida peninsula into Texas, Beach explained.

The skiffs are usually built with planking of sheet plywood, and generally have an overall length of about 20 ft. with beams at the transom approaching 7 ft. The depth is usually less than 2 ft. and because they operate in sheltered waters, seaworthiness is not the prime requirement.

Shallow gillnets are set and hauled over the stern, and so require substantial buoyancy and working room in the stern. The nets are often carried on a self-bailing tray, while the catch is normally carried in a built-in or loose box athwartship. As a clear working space is required aft, the motor should be mounted elsewhere. The mounting well permits the motor to be both steered and pivoted.

A feature of the construction of this type is the use of the standard large sheets of plywood. The bottom is cut from the standard panel 6 ft. by 20 ft., while the two sides are cut from a single panel 4 ft. by 20 ft. The bottom longitudinals are heavy and provide for nail fastenings to the bottom planking.

The inner longitudinals are spaced so as to provide

These shad fishermen on Hudson River, N. Y. use a Johnson outboard to power their gill net boat. In this type craft, motor is generally mounted forward in cylindrical well of heavy guage pipe.

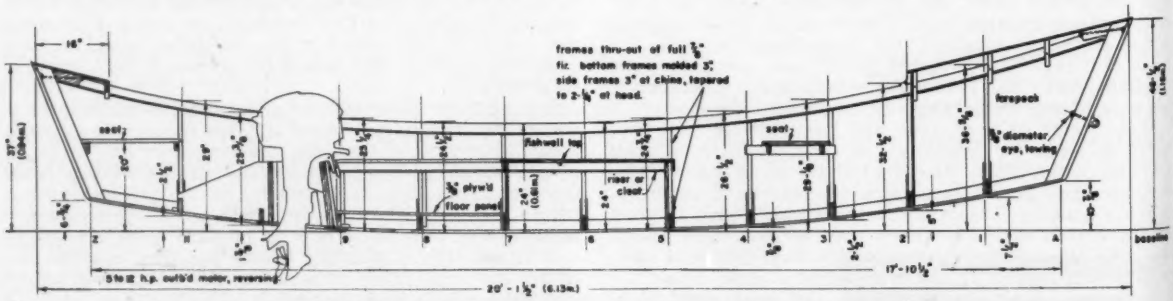
a landing for the sides of the motor well. When not in use, the motors are usually tilted up because they are not protected by marine paints and become foul if left in the water. The metallic additives in anti-fouling paint are not completely compatible with the aluminum die-castings from which the motors are made.

Some boats are built more heavily, having ¾ in. side planking on closer spaced frames and 1 in. cross-planked bottom. The dimensions do not vary appreciably, except for a somewhat increased beam aft. In normal operation, the one or two-man crews sit forward and the boats run well both light and loaded. The sloped after end of the well does not seem to affect the performance and little water splashes into the boat. A transverse wedge is fitted across the inside of the well to suppress any splash in waves.

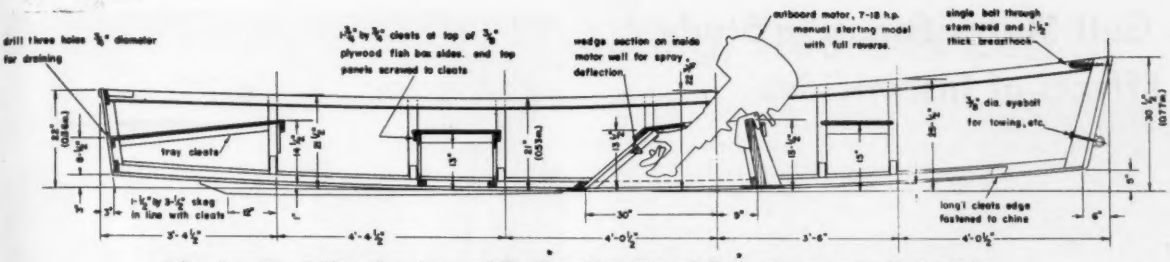
Performance data of tests made on a mullet skiff provided curves of the speed-load pushing capabilities of a wide range of standard motors. The bare weight of the tested boat was 660 lbs. With a 10 hp. motor, fuel containers and a two-man crew, the displacement exceeded 1100 lbs. At this displacement, the speed was 10.3 knots, which decreased to about 4.9 knots, when more than 1300 lbs. of fishing gear and catch were added.

Corresponding performance curves for 18 hp. and 35 hp. motors, indicate that mullet skiff are not truly responsive to increased horsepower in the loaded condition. The power most popular with the fisherman along the west Florida coast is in the 12 to 20 hp. range going occasionally up to 25 hp. The 18 hp. motor permits speeds of 10.7 knots light and over 4.9 knots with half a ton of catch aboard.

These performances, are not optimum, as they were run with standard propellers. As the speed decreases due to increased load, the engine speed also decreases because of the excess pitch of the standard propeller, and the power falls off considerably. Fishermen are aware of



Inboard profile of 20' double ender beach landing salmon troller used with outboard motor on Oregon Coast.


drill three holes ⅜" diameter for draining
tray cleats
wedge section on inside motor well for spray deflection
outboard motor, 7-18 h.p. manual starting model with full reverse
single bolt through stem head and
thick breasthook
⅜" dia. eyebolt for towing, etc.
long cleats edge fastened to chine
30"
9"
6"

Inboard profile of 20' outboard-powered Florida mullet gillnet skiff showing motor in tilted position.

this and equip their engines with lower pitch propellers to attain full engine revolutions, full power development, and in turn, a 10 to 15 percent speed increase.

River Gillnet Tender

There are numerous deep water rivers along the eastern seaboard, leading to the spawning waters of fish such as the shad. In these tidal rivers, gillnets are placed on poles driven into the river bed, the nets being below the surface at high tide and often at the surface at low tide. In such areas Beach continues, a type of craft something like the Florida mullet gillnet skiff has been evolved to tend the nets, which often are set in waters where tidal flows approach 2.5 or 3.3 knots.

When the nets are tended by rowed craft, using two pairs of oars, the normal mode of approach is to the net stern against the tide. The oarsmen row to hold the boat stern against the net while one or two fishermen haul the net up and pick out the catch. The fishermen move the craft along the length of the net with the oarsmen keeping the boat in place.

Typical outboard powered gillnetters are of the lapstrake type, and have a cylindrical, metallic, motor mounting well of heavy gauge pipe about 6 ft. from the stem. Such an arrangement is suitable for operation in deep water where there is no need to tilt the outboard.

The motor is placed in the well and clamped on. The operator sits on the thwart forward of the motor, and operates the throttle and reverse gear while facing aft so that he can best observe the net handlers.

Oyster Garvey

Another boat described by Beach is the garvey, a recent development in the oyster fisheries. The garvey features twin skegs which provide protection against grounding, and facilitate beaching and launching the boat.

The motor is usually mounted on a heavy cross framed bulkhead, and projects through the bottom motor cut out between the skegs. The transom is cut out to permit easy after flow of the wake and to permit the escape of exhaust fumes from the bypass without contaminating that air taken in by the carburetors.

The garvey is popular along much of the New Jersey coast and in Chesapeake Bay. It is generally considered a craft for sheltered waters, but the substantial construction, together with large beam, could permit operations in fairly rough waters, as indicated by offshore use through the New Jersey inlets.

A 25 hp. motor is generally used in a boat of the garvey's size (about 27 ft. long with a 7 ft. beam), and operators report speeds of 12.4 to 14 knots in light condition.

Salmon Net Tender

The largest commercial use of outboards for fishing may be in the salmon fisheries of the Pacific Northwest and the State of Alaska, according to Beach. Salmon net tenders have proved satisfactory for the rough waters as far north as Cordova Bay on the Alaskan coast. The motor is fitted in a well aft, and the craft is operated from there, but the motor may be located off the centerline to the chine. This installation provides a wide working area at the transom for the handling of nets.

This type is also fitted for forward installation of the motor, in a well similar to that of a Florida mullet gillnet skiff. The forward installation is very well adapted to the stern handling of nets by one or two-man crews. The fitting of transverse bulkheads varies with the operators, but generally follows the arrangement which uses a net roller fitted across the transom.

New England Lobster Boat

In the lobster fishery of the North Atlantic, outboard-powered craft, about 25 ft. in length and 8 ft. in beam, are replacing some inboard lobster boats Beach explains.

The New Englander demands a measure of seakindliness and shelter that is not always possible in small working craft. Also, the craft must be efficient, inexpensive, and capable of one-man operation. The lobster boat has lines adapted to diagonal planking, and is often so planked. The lines are characterized by a deep forefoot and as long and smooth a run as is possible. This form provides a combination of characteristics which makes it ideal, with the outboard motor, for pot hauling.

The lobsterman pilots his craft from a little shelter forward where he has excellent vision as he approaches the lobster pot buoy on his starboard side. When the boat is alongside the pot, the operator throttles, and makes a hard starboard turn as he picks up the buoy with his hook. While he hauls the pot over the block fitted to the davit aft of the shelter, the craft makes a tight circle to starboard, pivoting about the deep forefoot with the motor thrust as far over as possible.

Such a craft makes a circle with a diameter about equal to its own length. The lobsterman can haul the pot, remove the catch, rebait the pot and throw it overboard in a very short time, during which the craft does not lose its position.

Of course, in heavily potted waters this is not possible, so the usual weather approach is made and easy handling by the remote throttles permits the rebaited pot to be

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Combining the stern of a catamaran with conventional bow of a single hulled boat, the 21'7" x 7'7" Mercury-powered, plywood "Katfish" makes 25 mph. Forward position of motor eliminates fouling of nets. Owner-builder Jack Crawford, Sarasota, Fla., says he can cover one third more area than with conventional type boat towing net skiff.

Gulf States Group to Study Effects of Insecticides

At the two-day Spring meeting held March 16-17 at the Hotel Admiral Semmes in Mobile, Ala., the Gulf States Marine Fisheries Commission set up a four-member special committee to study the potential effects of widespread insecticide programs on marine life in Gulf coastal waters.

J. Lloyd Abbot of Mobile, long a foe of the insecticide programs to control or eradicate fire ants, went before the five-state commission in an executive session and presented information indicating that large-scale use of insecticides close to inland streams could have a detrimental effect on marine resources in Gulf Coast estuaries.

He was supported by I. B. Byrd, chief of the fisheries section of the Game and Fish Division, Ala. State Department of Conservation, who told newsmen that there is little doubt in his mind that there will be toxic effects from these insecticides on estuarine marine life.

The Commission members then sent word to its estuarine technical coordinating committee, which was holding a simultaneous but separate session, to look into the matter. That committee agreed to set up the special four-member study group with instructions to report its findings back to the committee as a whole at the October meeting of the commission.

Members of the study committee are Byrd as chairman; Dr. Gordon Gunter, chief of the Gulf Coast Research Laboratory, Ocean Springs, Miss.; Dr. Lyle St. Amant, chief of oyster research of the La. Wildlife and Fisheries Commission, and Dr. George A. Rounsefell, chief of the bureau of commercial fisheries of the Tex. Game and Fish Commission.

The committee members were appointed by Theodore B. Ford of the La. Wildlife and Fisheries Commission, chairman of the estuarine technical coordinating committee.

The Commission heard that increasing imports of fish meal from South America poses a serious problem for the menhaden industry along the Gulf Coast and in other parts of the United States. The rising South American menhaden trade was touched upon by Harry L. McGinnis, of Wallace Menhaden Products, Inc. of New Orleans.

McGinnis said the volume of fish meal imported by American customers from South America menhaden processors has practically doubled in the past year, and explained that vigorous efforts will be made to demonstrate to the South American menhaden processors that by glutting the North American market they will hurt themselves while hurting their North American competitors through price drops and other means.

Other speakers at the commission meeting were James N. McConnell of the La. Wildlife and Fisheries Commission, New Orleans, who described the La. oyster

Attending the Gulf States Marine Fisheries Commission Spring Meeting were (left to right) Dr. G. Robert Lunz, Charleston, S.C. chairman of the Atlantic States Marine Fisheries Commission; Dr. Raymond Johnson, Washington, D. C.; and Hermes Gautier, Pascagoula, Miss., chairman of the Gulf States Commission.

fishery development program, and Gordon Gunter, of the Gulf Coast Research Laboratory, Ocean Springs, Miss., who gave a progress report on Gulf menhaden research. Travis D. Love of the Bureau of Commercial Fisheries, Pascagoula, Miss., presented a paper on industrial fish technology, and Raymond E. Johnson of the Bureau of Sport Fisheries and Wildlife, Washington, D. C. discussed the national significance of marine sport fisheries.

Herbert L. Wiltsee of the Council of State Governments, Atlanta, Ga., spoke on recent developments in the field of inter-governmental cooperation as regards natural resources, while Jerome F. Anderson of the U. S. Study Commission—Southeast River Basin, Atlanta, Ga. outlined plans of the study commission.

A panel was conducted on the subject of Gulf shrimp. Panel members were John C. Ferguson, St. George Packing Co., Ft Myers Beach, Fla.; Joseph Ramos, Ramos Shrimp Co., Bayou la Batre; Harvey R. Bullis, Jr., Bureau of Commercial Fisheries, Pascagoula, and George A. Rounsefell, Bureau of Fisheries, Galveston, Tex.

Another panel, composed of fishery administrators on the Gulf States Marine Fisheries Commission, discussed administrative problems. This panel included Howard D. Dodgen, Tex. Game and Fish Commission, Austin; William C. Younger, Ala. Dept. of Conservation, Montgomery; Ernest C. Mitts, Fla. State Board of Conservation, Tallahassee; Rudolph P. Easterly, La. Wild Life and Fisheries Commission, New Orleans, and Chester Delacruz, Miss. Seafood Commission, Biloxi.

(Continued from preceding page)

replaced almost exactly where it was. These boats have very easy driving characteristics and the 25 to 35 hp. motors normally used have proved to be adequate.

Salmon Trolling Dories

Along the Oregon coast there has evolved a type of dory which is used through the surf, and is a small beachlanding, outboard-powered, fishing craft. It is used for salmon trolling offshore in fairly heavy seas.

Beach describes the boats as constructed from plywood, with oversize, 22 ft. panels used for sides and standard, 18 ft. by 4 ft. panels for the bottoms. Fir frames are used with double plywood gussets at the chine joint of side and bottom frames.

The craft are provided with fish wells that are frequently open to the sea to provide circulating water for the catch. The motor well is often only a bulkhead opening in the bottom through which the small motor is dropped after the boat has been rowed through the surf. Some boats permit the motor to tilt, but these are rare as the dory ends do not permit a long cut out in the bottom.

The dories, true double enders, or with the wider "tombstone" transom, are launched from trailers or rollers directly into the surf. They troll under power, at 2.5 to 4 knots, with motors that seldom exceed 12 hp. They row very easily but, because of the extreme rocker of the bottom, they tend to squat at speeds above 5.8 to 6.6 knots.

In plywood or conventional dory planking, this is a type of small powered craft which might be used in many parts of the world. The fairly light construction might give some cause for concern, but where the shores shelve slowly and no pounding surf is to be encountered, such flat-bottomed craft serve admirably.

Drum Trawling Eases Handling, Reduces Loss

Pacific Coast Otter Trawl Development Adapts Readily to Conventional System

DRUM trawling is a relatively recent development, introduced into the Pacific Northwest otter-trawl fishery in 1954, and has become increasingly popular due to several advantages found in the method. The net can be handled much more rapidly and with less labor than the conventional system; the operation is safer because overhead handling of heavy gear is eliminated and the amount of total handling required is reduced; the operation can be carried out more easily in rough seas; and the method helps prevent the partial escape of fish from the mouth of the trawl—a source of loss that is often serious with the more common methods of picking up.

The drum-trawling method can be adapted readily to the trawling system in conventional use on the Pacific coast, wherein the net is towed from davits located one on each quarter of the stern. No major modifications in net rigging are necessary to convert the trawl.

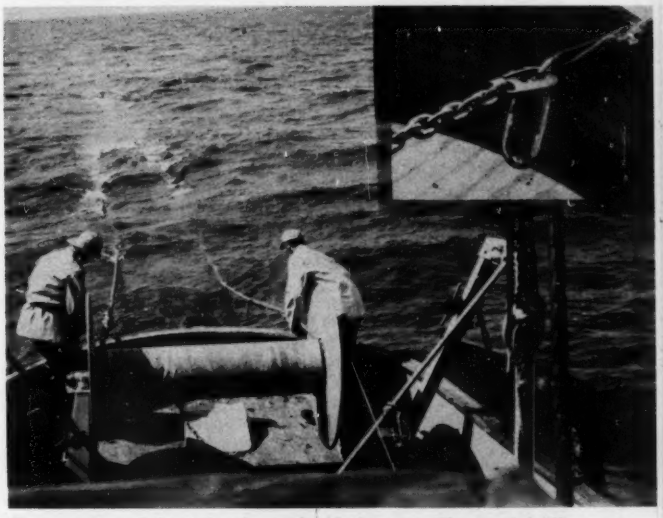
The principal unit of the system is the drum upon which the trawl is wound. It is constructed of sheet steel and is designed to accommodate a conventional otter trawl. Drum flanges are 4 to 5 feet in diameter and the drum core is 15 to 20 inches in diameter and 5 to 8 feet long. Stopper chains, for securing the trawl to the drum, are fastened near each end of the core. The drum is powered either directly by an independent hydraulic or mechanical drive similar to that for drum seining, or indirectly by means of a wire rope running from the main winch drum to a drive reel on the side of the trawl drum.

Two methods are employed commonly for connecting the net to the doors in the Pacific Coast trawl fishery. One method connects the wires leading from the headrope and footrope of each side of the trawl directly and separately to the doors creating a net-door connection known locally as a double dandyline.

The second system joins the foreward end of the wire leading from the headrope to the foreward end of the wire leading from the footrope of the same side to form a bridle. This is usually about 15 fathoms long, and the bridle is connected to the door by a 25-fathom, single-wire section (ground wire) forming a single dandyline.

The chief difference between the use of double and single dandylines in drum trawling lies in the way in which the two are started onto the trawl drum: when a double dandyline connection is used, the trawl is started onto the drum at the wingtips; whereas when a single dandyline is used, the trawl is started onto the drum at the foreward end of the bridles. The following is a description of a trawl equipped with a single dandyline.

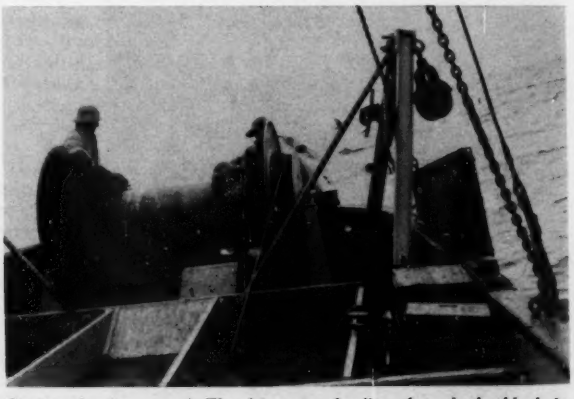
To set the gear, the bag of the trawl is thrown overboard and the net unwinds from the trawl drum as the vessel moves ahead. When the trawl and trawl bridle have been set the drum stopper chains support the strain of the gear. At this time the dandylines are reeved through the towing blocks on the davits and secured to the ends of the trawl bridles. The strain is taken off the stopper chains with the winch, and the chains are disconnected. Setting is then continued until the end of the dandyline is reached, the doors are hooked on in the conventional manner, and the set is completed by slacking out the required amount of warp.



Drum stopper chains take the strain of the gear. The trawl bridle can be seen leading to the net. Inset: the snap at the end of the stopper chain connected to the end of the trawl bridle.

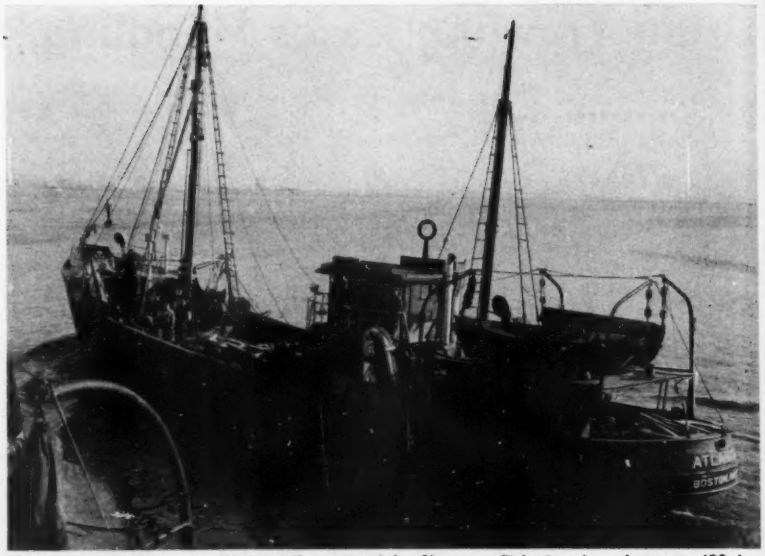
When picking up the gear, the doors are hauled back to the davits and, in contrast with conventional trawling methods, are completely disconnected from the dandylines —this is facilitated by replacing the conventional "Kelly-eye" with a "G-hook". The gear is hauled in until the foreward end of the trawl bridles appear. The stopper chains are then connected. The gear is slacked off slightly until the stopper chains take the strain of the trawl; and the dandylines are disconnected from the doors, removed from the trawling davits, and connected to the drum-drive wire. The trawl is then started onto the drum. When the trawl has been wound onto the drum as far as the intermediate trawl section, the portion of the trawl remaining in the water is lifted with a single-block lift, the fish bag is brought alongside by turning the vessel, and the splitting operation carried out in the usual way.

After splitting, the intermediate trawl section and bag are wound directly onto the trawl drum without further handling or maneuvering.



Setting the drum trawl. The drive wire, leading through the block in foreground, unwinds from trawl winch onto the drum drive wheel.

Controllable Pitch Propeller Installed On Boston Trawler



110' Boston steel trawler "Atlantic", operated by Shawmut Fisheries, Inc., has new 420 hp. 6-cylinder Burmeister & Wain Alpha Diesel with controllable pitch propeller.

THE first fishing vessel in the Boston, Mass. fleet to be equipped with a controllable pitch propeller, the 110' steel trawler *Atlantic*, has completed a month of successful operation since being repowered and extensively overhauled. The new propulsion unit not only has met its guaranteed performance, but has far exceeded the expectations of the vessel's owners.

The *Atlantic* is operated by Shawmut Fisheries, Inc., with Capt. John Doran in command and Sam Blom as chief engineer. Bart F. Whalen is treasurer of the firm, Edward L. Drane is president and port captain, and Mervyn Nickerson is shore engineer.

Her new power plant and controllable pitch propeller unit are of Burmeister & Wain manufacture. The B & W Alpha 406VO Diesel, with 9 1/16" bore and 15¾" stroke, develops 420 bhp. at a rated speed of 375 rpm. Certified by ABS, it is guaranteed to develop 460 hp. for one hour overload.

Directly connected at the rear of the engine is the hydraulic pitch control mechanism, a B & W clutch, and the Alpha 3-blade controllable pitch propeller. Designed as a unit and engineered to meet the specific operating requirements, the Diesel engine and controllable pitch propulsion system offers many operating and economy advantages that are possible only when the C-P propeller is used. Unequalled maneuverability, complete versatility and quick adaptability to varying running conditions are controlled from the pilot house through the hydraulic control lever that quickly and smoothly adjusts or reverses the propeller blades.

With the engine throttle, clutch lever and propeller controls being mounted in the pilot house, the Captain has instantaneous and direct control over every operating condition. Propeller pitch can be adjusted to suit power requirements and engine operating characteristics whether the boat is running at full speed ahead to the fishing grounds, trawling, or hauling back. The hydraulic system provides efficient means for balancing propeller pitch against engine speed and horsepower pull.

When the propeller pitch in a fixed pitch installation is too high, the engine becomes overloaded and must be run at reduced speed; if the pitch is too low the engine will not be fully loaded even at maximum rpm. Constant speed engine operation always has been an aim that now is possible with the controllable pitch propeller. The result is calculated in fuel economy. Fuel consumption on the trial run test proved out at 0.38 lb/hp-hr, at full load, a remarkable economy under such 'forced draft' running conditions. Speed was logged at approximately 11 knots, an improvement over the boat's previous ability.

The engine room in the *Atlantic* is the utimate in neat simplicity, arrangement and accessibility. The new engine, being considerably smaller in physical dimensions than its predecessor, allows plenty of working room and

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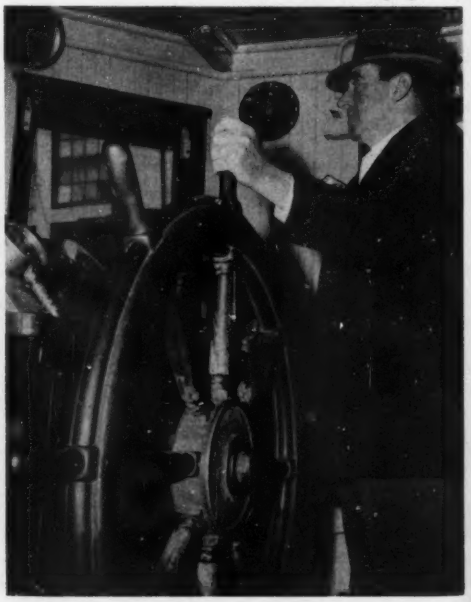


Left: Chief engineer Sam Blom (foreground), shore engineer Mervyn Nickerson (center), and factory engineer O. Beier Pedersen beside new 420 hp. Burmeister & Wain Alpha Diesel in trawler "Atlantic". Right: Capt. John Doran at wheel of the "Atlantic". The tachometer and two manometers face the wheel for easy reading.

SOUTH ATLANTIC

Jet Clamming Costs Cut With Single Engine Power

A clam biologist cooperating with America's atomic submarine builders recently disclosed an equipment improvement which promises to reduce soft clam harvesting costs by 20 percent. Joseph Manning, shellfish scientist at the Chesapeake Biological Laboratory, Solomons, Md., said he has tested satisfactorily a controllable-pitch propeller which cuts power needs of a typical clam rig in half.

The new propeller eliminates one of the two large power-plants presently required on most of Maryland's clam boats. One of the engines propels the boat while the other drives a powerful water pump which literally blows clams out of the bottom mud in the bay. The pump engine must work at a speed to develop the necessary water pressure, but the boat itself should move very slowly.

Manning combined the two requirements by using one engine to serve both purposes; the "flattened" blades of the propeller bite only small slices of water on each turn, even with the engine running fast enough to drive the water pump. When the day's work is done, the clammer disengages the water pump, adjusts the propeller bite to a sharp angle, and heads home at a normal cruising speed.

Besides eliminating an engine (usually 80 to 120 horsepower) and its initial high cost, the propeller will cut gasoline consumption by about 20 percent, Manning feels. The dead weight of the boat will also be reduced, storage space will be gained, and engine maintenance costs should be lowered.

The design was made purposely simple enough to withstand long-term high-load clamming duty, the scientist said. It has been tested aboard the *John A. Ryder*, the Chesapeake laboratory's clam rig, and results to date are excellent, Manning said.

Virginia to Pay More Oyster Ground Rent

Virginia oystermen will pay more rent for oyster grounds under amended legislation which the Va. House and Senate approved recently. The House concurred in a Senate amendment which provided for a 50 percent increase in the rent. This was the amount Gov. Almond requested, although a House committee earlier had reduced the increase to 20 percent.

The increases won't affect present leases, most of which are for 20 years. As the leases expire the oystermen will pay new rents. These new rentals and other aspects of the oyster industry, including equitable ways of terminating leases when the oyster ground is needed for such public improvements as dredging, will be studied by a commission to be created by other legislation passed by this Assembly session.

March Hampton Roads Landings

March 1960 boat landings in the Hampton Roads area showed rises in several species when compared to March 1959 figures. Butterfish rose 65,000 lbs. to total 240,000, last month, as scup increased its total by 281,000 lbs. to 2,950,000 lbs. Sea bass amounted to 608,000 lbs. compared with last year's 560,000 lbs., and whiting rose from 29,000 lbs. in March 1959 to 85,000 lbs. last month. Hake went to 6,000 lbs. for a 5,400 lb. increase, while sea trout jumped to 14,000 lbs. from 7,000 lbs. in 1959.

During the same period, pound net landings showed increases in the take of striped bass with a total of 59,000 lbs. to increase 5,000 lbs. over last March's totals, and in the carp take with a jump of 5,000 lbs. over the catch made during the same period last year.

37' crab dredge boat "Susie C", owned by Capt. Frank Parks of Hampton, Va.

March Weather Delays Virginia Fishing

Crabs have been scarce throughout the season, but crab boat operators have had a fairly profitable winter because the price per barrel for them has remained at $10 since early January. Jimmy crabs have rocketed to possibly the highest price on record, reportedly from $33 to $40 per barrel. In the Hampton Roads area the daily average output for processed crabs has been around 4,000 lbs. for the month. Crab pots did not operate throughout March because of the cold, and the crab-dredge season was extended two weeks.

Oysters, too, have been scarce in Virginia throughout March as weather was the chief hampering factor in production, with high winds prevailing much of the time. Clams also are scarce especially the small clams, and the demand for both has been very high.

Scientists at Virginia's marine laboratory at Gloucester Point say that the extremely cold March weather has prevented an early run of shad. During March, sea water at the laboratory on the York river was colder than it was in January and February, usually the coldest months, but became warmer the last few days of the month.

Virginia Trawl Fishery Expanding

Fish and scallop production from draggers and trawlers in the Hampton Roads area is showing a steady increase. The boats have done well this winter and the number of craft landing catches is growing.

Four New Bedford, Mass. vessels, which have been fishing out of Portsmouth since last Fall, will make Virginia their permanent base. They are the dragger *Louise* and scallopers *Moonlight, Jerry & Jimmy*, and *Bobby & Harvey*. Fleet manager for the boats, Harvey Phillips has established residence in Portsmouth.

Fluke and sea bass have been in good supply, with the best production in several years. Several North Carolina boats have been landing catches at the Isaac Fass, Inc. plant in Portsmouth. This firm is adding unloading space for another boat so that it will be possible to discharge four boats simultaneously.

Virginia is having an excellent run of shad from both gill nets and pounds, with normal prices. The Hampton Roads area reports the best production in 20 years.

Dragger Repowered at Norfolk

The 74' dragger *Sunapee*, owned by Capt. Arnleif Veek of Gloucester, Mass. was recently repowered by Western Branch Diesel, Inc., West Norfolk, Va. Her new engine is a General Motors 12V-71, 335 hp., 1800 rpm. Diesel with 4.15:1 Twin Disc reduction gear. It swings a new 56 x 36, 5-blade Michigan propeller.

Pollution Study Sought by York River Oystermen

A delegation of Va. oystermen protested recently that wastes from the Chesapeake Corp. of Va. at West Point are ruining oyster beds. They asked the House Rules Committee to report a resolution that would request the State Water Control Board to study pollution in the York with particular attention to wastes discharged by the Chesapeake Corporation. The committee postponed action on the resolution.

Meanwhile, the Water Control Board approved a proposal by the Chesapeake Corp. to dump into the York River treated waste from a planned expansion of its West Point Plant. The 40 percent expansion of its plant would increase pulpwood purchases from seven to eight and a half million dollars annually.

The Water Board has directed its staff to confer with the firm concerning a possible survey of the York to determine any elements in the river detrimental to aquatic life such as oysters. The corporation had indicated earlier its willingness to cooperate in such a survey.

Good Potential for Frozen Dressed Fish

Wm. C. "Buck" Niemeyer, frozen seafood manager for Isaac Fass Inc., Portsmouth, Va., foresees a good market potential for frozen dressed fish. The firm produces an extensive line of Chesapeake varieties in this form. The fish are packed in vacuum sealed Durafilm 1 lb. bags that are placed in individual die-cut cartons through which the fish is readily visible. Niemeyer believes consumers like to recognize fish in their natural form, and that such fish have added appeal when served.

Isaac Fass reports good success with 50 and 100 lb. "Control-Pak" corrugated shipping containers for fresh fish. Specially treated to withstand moisture, the boxes stand up well in shipment. Since they provide superior insulation, they hold icing longer and the fish arrives in better condition. Being one-way containers, they eliminate re-use which is common with wooden boxes.

Maryland Fishermen Preparing for Approaching Season

Many lower Chesapeake Bay oystermen are turning their attention to the fishing season now about to get underway. Operations have been retarded somewhat by bad weather conditions during the past weeks, but full-scale fishing operations were expected to get underway by the last of March or the first weeks of April.

Taking advantage of the few better days of weather, fishermen in the lower bay sections were painting their boats, sharpening their pound stakes and getting their nets in order in preparation for their operation. Some pound fishermen already have put down their pound stakes. Many waited to put out their nets until after the end of March fearing the heavy wind storms which usually occur during the month.

Some gill net fishermen have had their nets out in the Pocomoke, Annamessex and Manokin Rivers, and made some catches of herring and rock fish during the latter part of March.

Reports coming from the Potomac River areas have indicated fishermen in that section were having good catches of rock fish during the last of March.

Local fish dealers have been receiving in small quantities during the past weeks, some herring and rock fish caught by gill net fishermen around Deal Island, Pocomoke and in the lower bay sections where the waters are somewhat warmer.

Marlon Hagan of Valona, Ga., owns the 62' shrimp trawler "Nomad", built by Diesel Engine Sales, Inc., St. Augustine, Fla. The double rigged vessel is powered by a 170 hp. 6-71 General Motors Diesel turning a Federal propeller. She has a 1500-watt Delco Remy generator, and a 750- watt Onan light plant.

Maryland Commission Gets Extension of Powers

H. C. Byrd, chairman of Maryland's Tidewater Fisheries Commission said the recent approval by the Legislature of changes sought by the Commission will be of great value, although he was disappointed that the state did not give the Commission the complete extension of powers that was requested.

One of the new powers granted will enable the TFC to permit the commission to issue in any county a new license to replace one which may be forfeited by a resident of that county. He said the commission also will be able to work out a plan of production management in Worcester County waters which are now exempt from most of the state's seafood laws, and negotiate with Virginia for improvement in the crab fishery.

"The authority we now have to use federal or private money for any projects we see fit may also prove useful as will the authority to experiment with different type of oysters," Byrd said.

The Legislature gave the TFC permission to import up to 50 bushels of any variety of oysters for experimental purposes. Byrd said Japanese oysters as well as those from some other states will be used in experiments to see how they grow in Chesapeake Bay. Another of the new powers gives the TFC tighter supervision over the activities of out-of-state oyster buyers who can now come into the bay, make their purchases from watermen and depart. The TFC will have authority to license them at fees not to exceed $50.

Reject Bill to Pay Maryland Watermen for All Oyster Shells Returned

Maryland Gov. Tawes put on pressure last month to stave off receiving a bill that would have required the Tidewater Fisheries Commission to pay for all oyster shells obtained from Md. packers. Del. Quinn of Somerset told the House of Delegates that the governor was definitely opposed to the bill and if passed he would veto it. The House then reconstructed its previous approval of the shell amendment and rejected it. A similar move by Quinn had previously failed 54-38.

The shell amendment to the bill granting the commis-

sion greater discretionary powers was pushed by Del. Harrison of Talbot, chairman of the Chesapeake Bay and Tributaries Committee. Packers now must give the state free of charge half their shells, which are dumped back into the bay as a bed for more oysters to grow. Quinn said there was no money in the budget to permit the commission to pay for shells at an estimated cost of $100,000.

Fort Myers Beach Shrimp Fleet Blessed

Thousands of spectators along Matanzas Pass last month witnessed the blessing of the shrimp fleet at Fort Myers Beach during the second annual Island Shrimp Festival. Twenty boats received the blessing of the Rt. Rev. William F. Moses, Suffragan bishop of the Episcopal Church, Diocese of South Florida, who came to the Beach from Orlando to conduct the ceremony. Bishop Moses was assisted by the Rev. Ralph R. Johnson, vicar of St. Raphael's Episcopal Church, Fort Myers Beach.

The gaily decorated boats which passed the blessing stand included the *Lady Kossie* owned by Capt. John Ferguson, *Janet Lee* owned by Norman Jamson, Einar Anderson's *Columbus*, Harold Bothwell's *Cindy Lee*, and *Miss Queenie* owned by Irving Tormala.

Coast Guard Auxiliary Flotilla 4, Fort Myers Beach, stood patrol at the blessing of the fleet and also at sail boat races held as a part of the festival, sponsored by the Fort Myers Beach Lions Club.

Other events included in the four-day festival were a band concert, card games, beauty contest for Miss Island Shrimp Festival, junior royalty contests, a street dance, shuffleboard tournaments, art show, and sailing races.

Spectators at Fort Myers Beach on blessing day ate 400 pounds of shrimp made into shrimp rolls by St. Raphael's, while hundreds more pounds went into the pot for a shrimp boil served by Melvin Cowart Post 274 at the Legion Home.

This was the eighth annual blessing of the fleet by an Episcopal bishop, the ceremony first having been conducted in 1952, shortly after the shrimping industry started here.

Fire Sinks Florida Shrimper

The 68-ft. shrimper *Carol Ann*, burned to the water line and sank last month three miles off Turtle Mound. She is believed to be a victim of a short circuit in engine room wiring. Her skipper Joseph Simmons, and his two crewmen, were taken off without injury by the shrimper *Miss Libby* and placed aboard a Coast Guard vessel. The *Carol Ann* was owned by B. L. Stovall, Jr., of Fernandina, and fished out of Fernandina.

North Carolina to Predict Menhaden Supply

At the Bureau of Commercial Fisheries laboratory on Pivers Island, Beaufort, N. C., a staff of 13, headed by Fred C. June, chief of menhaden investigations, has been making a study of the life history of the menhaden—where it spawns, where it lives, what causes "good" and "bad" years in the catches, and how man's activities may affect the fishery.

On the basis of five years of work, June says that restricted predictions can be made in advance of the season as to what menhaden catches will be. With such knowledge at hand, the operators of menhaden fleets and factories can tool up accordingly, thus permitting more economical operation.

S. C. Oystermen Want Season Extended

The oystermen of the Lowcountry have asked the S. C. Wildlife Resources Commission for a fifteen-day extension of the legal season for taking oysters. Normally, the season for taking oysters is from September 15 through April 30. The Wildlife Resources Commission has the power to extend the oyster season for 15 days.

PACIFIC COAST

Ask to Protect Salmon River Spawning from Dams

A bill to protect spawning grounds of salmon in the Pacific northwest cleared Senate committee and was moved up for U. S. Senate action recently. The bill would close off, to construction of all hydroelectric power dams, the Salmon river for its entire course before it empties into the Snake river in Idaho.

The bill, co-sponsored by Sen. Frank Church, Idaho and the late Sen. Richard Neuberger, Ore., was supported by fishery groups and private and public power interests, as an estimated 30 percent of salmon in the entire Columbia river basin spawn in the area.

Meanwhile the issue of public or private power on the Middle Snake River has gone before the Federal Power Commission as the result of action taken in Seattle, Wash. Directors of the Wash. Public Power Supply System, a group of 13 public-utility districts, authorized a filing for development of a major dam at the Nez Perce site, near the intersection of Washington, Oregon and Idaho state lines. The proposed dam is 700 feet high.

Grover C. Greimes of Sequim, president of the Public Power Supply System said the public-power forces do not propose to build at the Nez Perce site until satisfactory methods can be developed for meeting the fish problem. The Pacific Northwest Power Co. has developed an elaborate system for passing fish at the proposed Mountain Sheep barrier.

Moss Landing Boat Sales

The 44-ft. double-ender *Selma J.* has been purchased at Moss Landing, Calif. by George Ratcliffe of San Francisco from Robert Mason. The troller has a General Motors 3-71 engine and a 50-watt Apelco radio.

Other sales reported are the 36-ft. *Three Star* bought by Gordon Dunn of Fresno from Frank Hennessey and the 28-ft. *La Gitana* purchased by William Austin from Francisco Pedraza. The *Three Star* has a General Motors 6-71 engine. The *La Gitana*, a square-stern troller, is powered by a Universal, 90 hp. engine.

In other shifts in ownership at Moss Landing Stanley

Capt. Tony Mihovilovic of San Pedro, Cal. has recently equipped his tuna boat, "Marauder" with the new Bendix Shipmate II, transistorized marine radio receiver.

Haskin and George Zobel purchased Conrad Pederson's *Sun-Ra*. Pederson is having a 50-ft., northern troller built by Anderson Shipbuilding Co. in Seattle, Wash. Robert Mason, former owner of the *Selma J.*, has purchased the *Hermes II* from John Saarinen. Clarence Harmon owner of the *Sea Siren* is having a 50-ft., northern troller built in Kernsville, Ore.

The 40-ft. *Lizzart* owned by Ralph Haskin of Big Sur has been sold to T. D. Lollich. The boat has a 12-ton hold and a General Motors 6-71 engine. The 28-ft. *Teal* has been sold by George W. Ferguson to Ira A. Beal, Jr. The craft's engine is a 20 hp. Fairbanks-Morse. Other equipment includes an Apelco 30-watt radio and receiver.

The 30-ft. *Phee-Bob* has been sold by Bob Shields of San Jose to John Triolo of Gilroy. The boat has a Universal, 90 hp. engine, Apelco radio and receiver, RCA direction finder and 50-fathom Bendix depth sounder. Francis Casquilho has sold his 34-ft. *Headwind* to Abadie Fulton. Its engine is a 115 hp. Chrysler Crown. Radio transmitter and receiver are RCA.

Leonard Shirrell has sold his 33-ft. Monterey clipper *Dorothy Belle* to Harvey McGuire. The boat's engine is a Universal "Blue Jacket" 6 hp. Other equipment includes Apelco radio and receiver and direction finder and Raytheon depth sounder. The 28-ft. *Susan Kay* owned by Dale Detwiler has been sold to John A. Paulson Jr. The boat has a Red Wing 45 hp. engine, Kaar radio and receiver, and Apelco depth sounder. The 30-ft. Monterey clipper *California* was sold to Stanley Ellis by Lynn Gion. The engine is a 94 hp. Chrysler Ace. The boat has an RCA direction finder.

Move Fish Plant to Moss Landing

General Fish Corp. is moving headquarters from Santa Cruz to Moss Landing, Calif., according to an announcement by Joe Flanagan, president of the company with headquarters in San Francisco. A long term lease on a former reduction plant is under way with completion expected in time for spring fishing.

The building will contain a quick freeze room at 40 degrees below zero capable of freezing 20,000 pounds of fish every 8 hours. The storage room, with 10-degree-below temperature, will hold 1,000,000 pounds of fish. There will also be a fresh fish box holding 25,000 pounds at 32 degrees.

The 45' troller "Granville" out of Newport, Ore., is pinch hitting for the 80' research vessel which US naval funds will provide for the Oregon State college oceanography dept. Here a plankton net is being set to get a count of microscopic plant and animal life.

Seek Funds to Develop Washington Clam Fishery

A new, $1,000,000-a-year clam industry could be developed on the Washington coast, Milo Moore, state director of fisheries, said recently in Washington, D. C., where he went to seek federal participation in developing the industry. Moore said he believes there is an undiscovered gold mine for clams in the coastal regions between Neah Bay and the Columbia River.

A coastal strip 3 to 10 miles wide and 10 to 30 fathoms deep should be surveyed, Moore said. He said the State Department of Fisheries has a ship and the equipment for a survey and could begin it during April if the federal government will put up $50,000 for operating funds. Senator Warren G. Magnuson and Congressman Thomas M. Pelley have promised assistance in the proposed project.

Officials also are studying the possibility of federal aid in a clam-seeding-development program at the Bowman Bay Research Station near Deception Pass. Moore said the Interior Department has been working successfully on a similar program at Milford, Conn.

The clam-seeding program there, Moore said, has proved that clam spawning can be excited almost at will by temperature and environmental control. The Washington coast is capable of developing a clam industry rivaling that of Eastern New Jersey, where dredges operate as far as 20 miles offshore, Moore said.

Record Trout Stocking in California

An all-time record of 35,690,000 trout and salmon, most of them fingerlings, were planted in the 1958-59 fiscal year by the Calif. Department of Fish & Game. Despite the new record, overall costs were well within the goals set by the Commission in 1956, Director Walter T. Shannon said.

Breakdown of the fish planted showed 26,800,000 were fingerlings, 1,402,000 were subcatchables, and 7,444,000 were catchables. Total weight was 1,852,336 pounds, some 265,200 pounds under the previous year's production. The bill for this production came to $1,460,065, or $68,492 less than the operating costs in 1957-58. The savings were made possible because of a smaller poundage production and because of the increased use of dry food in hatcheries.

Largest Tuna Boat Converts to Seining

Nearing completion is a $150,000 conversion job on the largest U. S. tunaboat, the 159-ft., San Diego-based, *Normandie*, which has been bait fishing for 20 years. Of the 125 clippers in the San Diego, Calif. fleet, approximately one-third have either been converted to purse seining within the past year or their owners are planning to make the change soon, according to Earl Clagett, manager of the American Tunaboat Assoc.

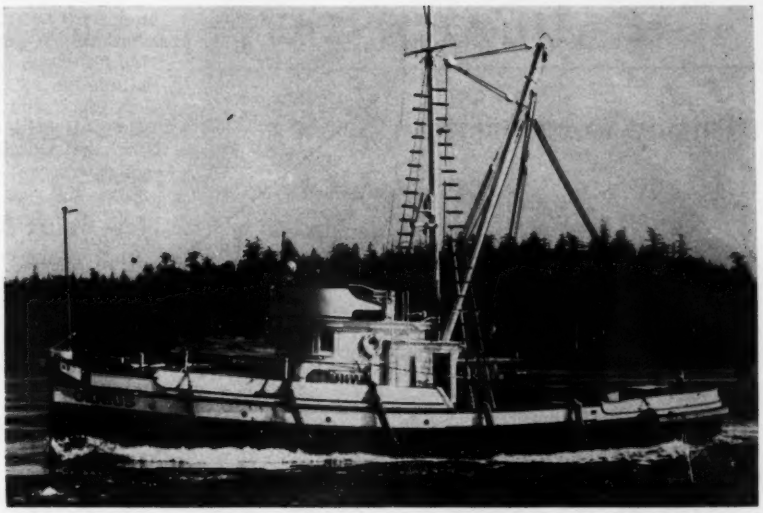
San Diego Firm Builds Aluminum Skiffs

Five 28-ft., all-aluminum skiffs are under construction at the Chaffee Machine Co. boatyard, San Diego, Calif. for use by commercial fishermen operating purse seiners. The skiffs are being made of welded plate and sheet sections of aluminum alloy 5086 supplied by Kaiser Aluminum. They will be Diesel powered and equipped with winches for net handling.

Plan Submarine Design for Fish Study

The U. S. Fish & Wildlife Service has under study a design for a small submarine to observe behavior of fish in ocean depths. Vernon E. Brock, chief of the Hawaii bureau of the Fish & Wildlife Service told a Honolulu conference that it now appears such a submarine may be practicable and preliminary design studies are under way.

Donald W. Strasburg, fishery research biologist, said the



"Genius", 65' Seattle, Wash., boat has been a salmon packer for Washington Fish & Oyster Co. since 1940. She is powered by a 115 hp. Caterpillar engine and 2:1 Twin Disc reduction gear turning a 44 x 32 Coolidge propeller. Other equipment includes Exide batteries, Northill anchor, Bendix depth recorder and Roebling wire rope. She is owned by Mrs. Nattie Skansi of Gig Harbor, Wash.

standard Navy submarines were too slow for fish detection. "We won't settle for anything less than 22 miles an hour submerged—about the speed of tuna", he said.

He said the submarine, with windows in its hull for visual observation, and with sound instruments for detection and recording, would track fish schools, especially at night. "We want to know what fish do at night—if the schools remain intact or not", Strasburg explained. "The only answer is to follow the fish below."

California Fishing Good After Storms

After being plagued by storms and rough seas, the Humboldt Bay, Cal., drag-fishing fleet finally resumed operations during the latter part of March, reporting some of the best fishing in local annals.

On March 23, what is believed to be the largest catch unloaded by a single fishing boat in Eureka during the past 10 years, 83,500 pounds was reported by Everett Draper of the *New St. Joseph*. The boat, largest in the port, is owned by Oakland Fisheries and the catch was made during three days fishing over the Dover sole ground.

The first bottom fishing of the current season took place when the 56-foot dragger *Ina*, captained by James Riley, docked at the Lazio Fish Co. with 62,000 pounds of bottom fish brought up in four tows. It was a capacity cargo consisting chiefly of Dover sole.

The *City of Eureka*, Capt. Dick Young, scored 65,000 pounds in another capacity load. The fish were delivered to the Hunter-Foland Fisheries in Eureka. Another large catch, 53,000 pounds, was brought in by the *Amak*, operated by Charles Ells of Eureka.

Crab boat owners said equipment valued at $270,000 was lost during the storms. San Francisco boats had 90 percent of their crab pots sanded in. Fishing authorities stated the usual methods of freeing them proved ineffectual.

Want Half Moon Breakwater Extended

More than 150 landowners, fishermen and business men have filed a petition against the present entrance planned for Pillar Point breakwater Half Moon Bay, Calif. For 50 years the community sought funds from one congressional session to the next. About 2 years ago, the $5,000,000, three-year project was approved and at this point is well along.

The petitioning group wants one leg of the breakwater extended toward the sea for about 600 feet. Fishermen feel this plan will provide an easier entrance for small boats and better wharfside protection. Army engineers estimate the change in design would cost $1,000,000 and would not improve the harbor as a refuge for vessels caught in a storm.

Croker, Moore Consultants at Geneva

Richard Croker of the Calif. Fish and Game Commission's Marine Division was named last month as a second consultant of the Senate Commerce Committee at the Conference on Law of the Sea which opened in Geneva. Chairman Warren G. Magnuson, of Wash. designated Croker to assist Milo Moore, Wash. State Fisheries Director, in representing the committee at Geneva.

One of the questions to be considered at the conference is whether the three-mile territorial limit will be retained. Magnuson said Moore and Croker hold assignments of importance to the United States fisheries, which want the present three-mile territorial limit at sea to be maintained.

Harold E. Lokken, Seattle, Wash., manager of the Fishing Vessel Owner's Assoc., is a delegate to the International Law of the Sea Conference in Geneva.

Fishermen's Co-op Re-elects Hammer

Reidar Hammer of Seattle, Wash., owner and operator of the troller *Victory*, has been elected president of the Fishermen's Cooperative for the fourth consecutive term, the organization announced last month.

Kristian Kyvik of Aberdeen was elected vice-president, Bert Johnston, Seattle, is secretary-treasurer. Willis Short of Charleston, Ore., was the only new member elected to the board of trustees. Other board members are Dan Hjort of Kirkland, Tom Leal of Port Angeles and Henry Parpart and Oscar Hall of Seattle, Wash.

Seattle Landings Increase in March

Seattle, Wash., otter trawl landings increased 147,000 lbs. in March 1960 compared to the same month last year. The rise was due mainly to jumps in ocean perch of 191,000 lbs. to total 252,000 lbs,, english sole of 138,000 lbs. for a 420,000 lb. catch, and rockfish of 204,200 lbs. to increase the catch to 530,000 lbs. Petrale sole rose to 67,000 lbs., for an increase of 46,000 lbs., while lingcod rose to 44,000 lbs. to top the March 1959 catch by 14,000 lbs.

Makah Tribe Against Limit Extension

The Makah Indians of Neah Bay will have a voice in the International Law of the Sea Conference at Geneva. In a resolution received in Seattle, Wash., last month, the Makah Tribal Council took a firm stand against any extension of territorial fishing limits at the United Nations-sponsored meeting.

"Extension of territorial limits would deprive members of the tribe their right to fish at usual and accustomed fishing grounds off Vancouver Island", the Makahs said.

NORTH ATLANTIC

Maine Congressmen Seek Fishery Extension Service

Congressman James C. Oliver and Frank M. Coffin of Maine have introduced legislation to authorize the establishment of a fishery extension service under the jurisdiction of the Fish & Wildlife Service of the Department of the Interior.

Through federal grants to educational institutions and state agencies, such as the Maine Department of Sea & Shore Fisheries, the extension service would encourage men to embark on careers in the commercial fishing industry. The funds would be used to finance classroom instruction, practical demonstration, and the printing and distribution of professional fishery publications.

The estimated average of Maine trawlermen is now over 40. Since young men are needed to replace the many fishermen expected to retire in the next few years, the fishery extension program can serve an important function in renewing the vitality of the fishing industry, they believe.

The program would be administered directly by the participating colleges and state agencies. The amount of the federal grant to each state would be based upon the comparative number of total licensed commercial fishermen, total commercial fishing boats, total fish landings and total value of fish landed in that state. Each state would be required to match the grant received from the federal government. The bill is similar to legislation passed by the Senate in 1958, which was revised in cooperation with the Maine Department of Sea & Shore Fisheries.

Maine Suspends Soft-Shell Clam Law

Maine's state law against the taking of soft-shell clams less than 2 inches in length has been suspended until Jan. 1, 1962. After years of controversy, the Legislature has decided to try the suspension to see how repeal of this limit would affect conservation.

The Legislature put into the law a provision for municipalities to fix some limit if they wish, leaving it to town meetings to decide what size clams may be taken within municipal boundaries.

Maine Yards Building Two Scallopers

Harvey F. Gamage, Shipbuilder, South Bristol, Me. is building an 80′ scalloper for George P. Ponte of New Bedford, Mass. Similar to the *Neptune* and of Dwight S. Simpson design, the vessel will be powered with a D375, 300 hp. Caterpillar Diesel.

At the Newbert & Wallace yard in Thomaston, Me. the keel has been laid for a 90′ scallop dragger, being built for Eldon M. Love, Marion, Mass., and his son, Capt. Edison M. Love, Wareham, Mass. She is of Dwight S. Simpson design and scheduled for August launching. The Loves own the New Bedford scalloper *Sippican* of which Edison is skipper.

Northeast Communications Adds to Line

Northeast Communications Corp., 200 Anderson St., Portland, Me. has added several products to its line, including Leece-Neville alternators, Universal generators and battery chargers, Aquadynamics ground plates, Webster antennas, Powerwinch anchor windlasses; and Sedco refrigeration conversion units.

The firm is distributor of Raytheon radiotelephones, Fathometers, fish finders, radar, and gas snifters; and Pearce-Simpson radiotelephones. A new demonstration boat, the 42′ *Chipper IV*, is being outfitted by the company with all of its products. Among her equipment, available for on-water inspection, will be the new Model 1700 Raytheon Mariner Pathfinder radar, Raytheon DE716 Fathometer, Pearce-Simpson Atlantic 70 telephone and G. E. electronic siren and loud hailer.

John C. Miles has been appointed sales manager of Northeast Communications. Lyman D. Chipman is general manager.

New Boats for Maine Fishing

Cliff Island Fisheries, Inc., Cliff Island, Me. has a new 36′ stop seiner under construction at Clarkes Harbor, N. S. She will utilize the air bubble system of sardine seining this summer.

The Cliff Island firm was established by three lobster fishermen last year to engage in seining operations. Officers are Carlton Cushing, president; Myles O'Reilly, vice-president; Malcolm Griffin, treasurer.

Fred H. Rice of Scarboro, Me. is having a new 45′x13′4″ x4′6″ long-liner built by Maynard Scott of North Yarmouth, Me.

Sales of Model 185 Flagship engines with Paragon hydraulic reduction gears for four lobster boats have been made by Harbor Supply Oil Co., Portland, Me. Three of the craft are new and include one for Harold Rogers being built by Skillings Bros., both of Bailey Island; a 34′ boat for Orrin Alley of Stonington, built by Harold Gower of Beals Island; and a Nova Scotia-built 38′ boat for L. King, Nahant, Mass. The repowering job is in Maurice Morey's boat at Stonington.

Joseph Falcone has joined the sales force of Harbor Supply Oil Co., Inc., and will be covering the State of Maine.

New Boat for Herring Research

A 65′ former Army T-Boat is being fitted out for herring research activities of the U. S. Fish & Wildlife Service at Boothbay Harbor, Me. The steel vessel has beam of 18′ and draft of 5′6″. Alterations are being made to provide facilities for exploratory fishing, gear research and biological studies. A Bendix DR-12 recorder, furnished by The Harris Co. is being installed.

The new craft replaces the 38′ *Blueback* which now will be used for fish tagging work. Another recent addition to the Boothbay Harbor Laboratory's fleet is the 42′ *Phalarope II* which was transferred from the Government's substation at Kingston, R. I.

Harris Co. Handling Kelvin-Hughes

The Harris Co. of Portland, Me. has been appointed to handle sales and service for Kelvin-Hughes line of navigation and fish detection equipment in the State of Maine.

A Kelvin-Hughes MS28F White Line recorder is being installed by Harris on the dragger *Monte Carlo*, owned by William Benson of Portland.

Capt. Paul York has a new Sperry Radar 5 on his Portland, Me. dragger *Mary & Helen*, installed by The Harris Co. Bendix Skipper 303, 65-watt radiotelephones have been sold by Harris for the New Bedford, Mass. scalloper *Abram H* and the sardine carrier *Black Diamond*, Capt. John Lewis, operated by Addison Packing Co., Southwest Harbor, Me.

Rhode Island to Move Quahaugs

The R. I. Fish and Game Division's boat *Stormy Weather* is scheduled to dredge quahaugs from the Providence River and transplant 15,000 bushels to Rocky Point and 11,000 bushels to the outer harbor at Bristol near Hog Island. The areas were selected by the advisory council on shellfishing and will be closed to shellfishing for several months, John L. Rego, state director of agriculture and conservation said.

Atlantic Council Would Unite Eastern Fishery Interests

The establishment of a fishermen's cooperative insurance program was discussed by representatives of several East coast fishing organizations at a meeting recently in Boston. The meeting was called to organize eastern fishing interests for the purpose of presenting a united front before the national legislature on matters of concern to the industry.

"The problems facing the industry", Tom Rice of the Massachusetts Fisheries Assoc. said, "points to the need of a cooperative insurance program to relieve the fishermen of some of their burdens."

The 18 persons present agreed that the united organization should include all industry associations from Portland, Me. to Norfolk, Va., with plans for expansion over the east coast to be made later. The Atlantic Fisheries Council was suggested as a possible name for the group.

Another meeting has been scheduled for April. All of the eastern associations will be requested to send one delegate and alternate, Rice said. "If the representation in April is as good as we expect it to be," Rice added, "we will go into the details of the structure of the organization and probably elect officers."

Georges Bank Yields Top Scallop Takes on Record

Georges Bank off the Massachusetts coast is producing scallops at a rate unparalleled since the Fish & Wildlife Service began studies in that particular fishery nearly 20 years ago. The usual 10-day scalloping trips of past years have been cut in half during the last 12 months because of the abundance of scallops on some sections of the bank.

In fact, actual fishing time of many vessels in the fleet has dropped to as little as three days for an 11,200-pound catch.

The quick catches have meant more trips and more scallops, but the dockside prices have fallen. Last year's record-breaking scallop take totaled nearly 19,000,000 pounds. And landings to date this year are already ahead of the comparable 1959 period.

Within the 10,000-square-mile fishing area, nearly 25 percent of the scallop catch is being taken in two small sections of the bank, each about 10 by 15 miles in size. On the southeast section, one of the small areas last year yielded 2,078,000 pounds of scallop meats, approximately 12 percent of the entire 18,391,000-pound catch on Georges Bank. In the other small section, on the northern edge, 1,910,000 pounds of scallop meats were harvested.

J. Arthur Posgay, in charge of sea scallop investigations for the Bureau of Commercial Fisheries at Woods Hole, said the scallops being harvested now, were the result of a "set four years ago when the seed scallops were more densely aggregated than usual."

Patenaude Named Union Delegate

Edward P. Patenaude of Fairhaven, Mass., has been named delegate of the New Bedford Fishermen's Union, to fill the vacancy created by the death of Robert J. Swain.

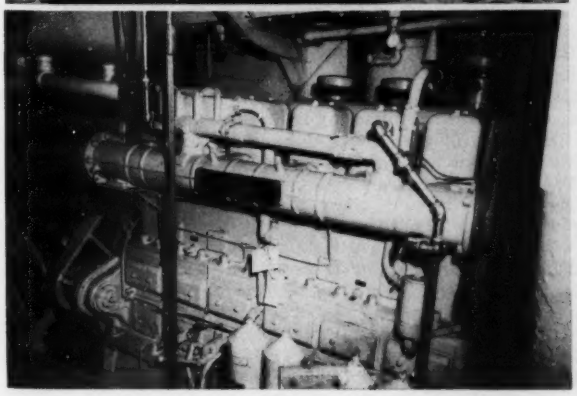
Vessels Repowered at Fairhaven, Mass.

The 65' dragger *CR&M*, owned by Capt. Joseph Silva of Provincetown, Mass., is being repowered with a 12 V-71 "V" Series General Motors Diesel, rated 335 hp. at 1800 rpm. Sold through Hubbs Engine Co. and installed by D. N. Kelley & Son, Fairhaven, Mass., the new engine has Twin Disc 4.15:1 reduction gear, 3:1 front power take-off and 32-volt electrical system. The vessel was built by Davis Boat Yard, McKinley, Me. in 1947. Silva also owns the *Linda & Warren*.

Another General Motors V-12 is being installed by the Kelley yard in the New Bedford dragger *Miriam A.*

New Bedford Scalloper Noreen Repowered

Capt. Michael B. Smith, owner; Capt. Robert Smith, skipper (left to right above) of 92 ft. "Noreen" (center) repowered with LRDBCSM Waukesha Diesel (bottom). Rated 510 hp. at 1200 rpm., engine has Ingersoll-Rand starter, Snow-Nabstedt 3.5:1 hydraulic reduction gear and 2:1 power take-off, was sold and installed by Hathaway Machinery Co., Inc. With 64 x 46, 4-blade Federal propeller, she makes 11 knots. Converted from 32- to 110-volt electrical system with new Exide Ironclad batteries. Vessel built at Fairhaven, Mass. in 1941.



Heavily iced up after a 9-day trip off Canso, Nova Scotia is this 110' Portland, Me. trawler "Winthrop", Capt. Wilbur Olsen. She landed 190,000 lbs. of redfish. Her power is a 640 hp. Fairbanks-Morse Diesel.

owned by Capt. Eric Besso. The engine has a 6:1 Twin Disc reduction gear, and was sold through Hubbs.

R. A. Mitchell Co., Fairhaven, Mass. is placing a General Motors V-12 with Twin Disc 4.15:1 reduction gear in the New Bedford dragger *Adventurer*, owned by Capt. Jerry Moriarty and Ernest Clattenburg. A General Motors 6-110 Diesel, rated 220 hp. at 1600 rpm., has been installed by Mitchell aboard the dragger *Rosemary R.* owned by Capt. Higino Rendeiro of Stonington, Conn. This engine has 4.5:1 reduction and swings a 52 x 38 propeller.

New Bedford Boat Sold

The 69-ft. New Bedford, Mass. fishing vessel *Kelbarsam* was bought at public auction last month by Richard E. Sherman of North Dartmouth. George E. Feener, Jr. of Fairhaven, bid for the craft at a previous sale in February but the Federal Court refused to confirm the sale as the craft was appraised at $5,000.

To Close Shellfish Areas Near Marinas

Closing of all shellfishing areas in the vicinity of marinas in shore communities along the entire coast of Massachusetts has been decided upon by the State Department of Public Health. Members of Massachusetts Shellfish Officers Assoc. were told at their annual meeting that the communities will have to choose between retaining their shellfisheries or allowing the construction of marinas.

Mario Borchetti, sanitary engineer with the health department, said the decision was reached because of a pollution problem encountered in Gloucester where a marina was constructed recently. At the same time, Borchetti blamed the Coast Guard for the closing of Little Harbor at Woods Hole to shellfishing and said bacteriological tests would be made in the very near future in Great Harbor to determine whether shores will have to be closed to shellfishing in that area.

Shellfish officers from Cape Cod to the North Shore attended the annual association convention in Boston. The two-day program heard addresses on subjects ranging from softshell clam predation to promotion and marketing of shellfish.

The work of a privately-operated experimental shellfish firm in Dennis and Orleans was described by Richard H. Loring, biologist, and vice-president and general manager of Cultured Clam Corporation. He described the construction of two artificial pools for clam culture in Dennis' north shore marshes. Transplanting softshell clams from a site in Orleans to Pleasant Bay was also reported by Loring. He said the experimental pools will be planted soon and that present plans call for the development of a clam hatchery in Dennis.

Fishery Advisory Council Holds Open Monthly Meetings

The second meeting of the Massachusetts Marine Fisheries Advisory Commission took place in Gloucester recently. The Commission restricted testimony to problems relating to dragging and seining north of Boston. Other topics of concern to Massachusetts marine interests were scheduled for later meetings at other points along the coast. The first part of the session was given over to representatives of the industries affected. Additional public testimony statements were heard later.

Technical personnel from the state Division of Marine Fisheries and the U.S. Bureau of Commercial Fisheries summarized existing scientific information on north shore dragging and seining for the benefit of the Commission and attending public.

Charles H. W. Foster, Commissioner of the Dept. of Natural Resources, emphasized that the open meetings of the Commission are designed to give all segments of the Massachusetts marine fisheries field an opportunity to be heard and a chance to present recommendations for improving the Commonwealth's present programs. He said that no conclusions or recommendations would be released until the Commission's final report on December 1, 1960.

The Advisory Commission plans to hold 10 monthly meetings in seven coastal communities between March and December and to submit a report with recommendations to Gov. Furcolo in December.

The schedule of meetings announced by Foster are: April—Provincetown, topic, "Dragging and Seining"; May—Boston, "Lobsters"; June—Bourne, "Shellfish"; July—Plymouth, "Recreational Boating"; August—Boston, "Sport-fishing"; September—Boston, "Skin Diving", October—New Bedford, "Licenses and Regulations"; November—Woods Hole, "Research and Evaluation Programs"; November—Boston, concluding meeting.

Meanwhile the State Legislature proposes to make the marine fisheries advisory council permanent. House Bill No. 1038 would set up an Advisory Council for the same purposes as outlined by the Governor. Under Dolan's bill, the members would be unpaid, a condition also in the Governor's order. But unlike Furcolo's order, the Dolan bill proposes to provide money for every member's expenses for attending meetings.

Set New Bedford Tilefish Record

A total of 374,500 pounds of tilefish were landed in New Bedford, Mass., during a 3-day period last month. The total was highlighted by sale of a 50,000-pound catch by the dragger *Pearl Harbor*, taken on the fluking grounds south of Martha's Vineyard. Last year's New Bedford landings of tile were 359,000 pounds.

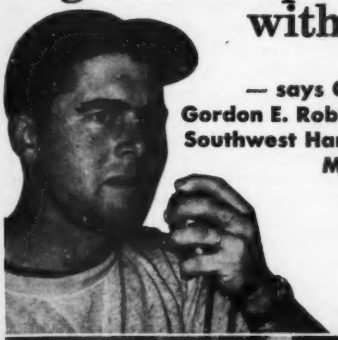
New Jersey Cites Nelson Service

In January 1960 Dr. T. C. Nelson, formerly of Rutger's University, and head of Shellfish Research, was signally honored by the granting of a Citation for Distinguished Service to New Jersey Agriculture by the New Jersey State Board of Agriculture.

As a research biologist, Nelson won acclaim during 40 years of research in establishing sound cultural practices in oyster farming. One of New Jersey's pioneer conservationists, he strove for a greater appreciation of natural resources, particularly soil and water.

For over 30 years as a member of the Water Policy and Supply Council and as its chairman, Nelson demanded correction of wasteful practices and pursued a policy of conservation and fair distribution. Since his recent retirement Nelson has continued in public service as a member of the State water authority.

"I get more speed, greater response, plus real economy with my new Allis-Chalmers diesel"

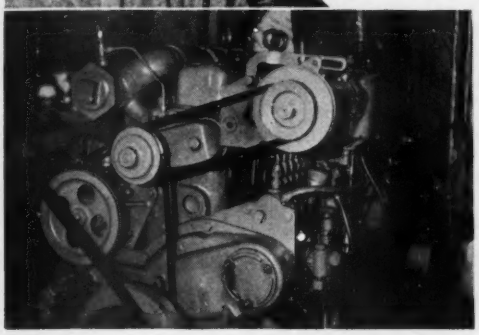


— says Capt. Gordon E. Robbins, Southwest Harbor, Maine

"I've had the 'Miss Judy' for five years, but I never had the response out of her I do now with my new 85-hp Allis-Chalmers diesel," states Capt. Robbins. "What's more, I get real economy now. I burn only a gallon an hour, which is a considerable saving over my old engine. I figure this Allis-Chalmers will more than pay for herself in a very short time.

"Now I get an easy ten knots without straining the engine — and I haven't even had an initial adjustment yet. Figure after that she will give me a knot or two more speed. But just as she is, I like the Allis-Chalmers diesel fine!"

You can benefit by using Allis-Chalmers marine diesel power, too. Talk with your dealer about powering a new boat or repowering your present boat. You'll be glad you did. Allis-Chalmers, Milwaukee 1, Wisconsin.



This Allis-Chalmers 85-hp Model 273 marine diesel gives the *"Miss Judy"* more response, more speed, along with great fuel economy, according to owner-captain, Robbins.

The sleek 32-ft lobster boat, "Miss Judy" was built in 1954.

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GULF OF MEXICO

The 67', Tex., shrimp trawler, "Desco" is owned by Capt. Burwell A. King of Aransas Pass. The craft is powered by a 120 hp. D13000 Caterpillar engine and 3:1 Snow-Nabstedt reduction gear to turn a 46 x 36 Columbian wheel. Included in the equipment is Columbian cordage, Northill anchor Bendix DR-9 depth sounder, White compass and Apelco radio telephone. She uses Esso fuel and lubricating oils.

New Mississippi Seafood Commission Approved

Governor Ross Barnett signed into law a legislative bill which abolishes the old 5-man Miss. Seafood Commission and establishes in its place a 10-man Miss. Fisheries Commission.

Under the new law the Fisheries Commission is composed of three persons from each coast county. The tenth man, a marine biologist appointed by the Governor, will have certain veto powers over the rest of the Commission.

A two-thirds vote of the Commission will be necessary to over-ride his edicts on seafood propagation and regulations.

Before approving the House-passed bill, the Senate adopted a series of amendments to restore statutory size limitations on oysters and shrimp stricken by the House bill. The changes in the House bill were recommended by the Senate commercial fisheries committee, headed by Sen. Stanford Morse, Jr., Gulfport.

Morse said the senate committee restored culling and size limitations on oysters and shrimp which were eliminated by the House bill. The amendment, Morse said, puts back the three-inch culling law on oysters, but gives the commission, on recommendation of the marine biologist, authority to reduce it to two and one-half inches. On shrimp, the present count of 68 shrimp to the pound would be put back into law, also subject to recommendation of the marine biologist on the commission.

Newly appointed members of the Miss. Fisheries Commission are William Simpson, Jr., Gulfport; Charles Weems, Biloxi; and Mike Sekul, Biloxi—all of Harrison County. George Brumfield, Moss Point; Henry Hultz, Pascagoula; and Champ Gay, Ocean Springs—all of Jackson County. Joseph Colson, Waveland; Lloyd Ladner, Bay St. Louis; and Alden Mauffray, Bay St. Louis—all of Hancock County.

Oyster, Shrimp Research Funds Sought for Louisiana

Additional funds for Southwestern Louisiana Institute (SLI) in Lafayette for biological oyster and shrimp research and necessary legislation to keep the American market from being flooded with foreign shrimp were principal topics discussed recently by a group of educators, members of the Louisiana Shrimp Assoc., the industry, public officials and businessmen attending the second annual meeting of the Association.

Joe Rhiel of SLI, head of the biology department, who recently conferred with officials in Washington, said that necessary funds to carry on shrimp and oyster research in Vermillion Bay and the Gulf of Mexico are lacking. He stressed the need of a research program at SLI similar to one being carried on at the University of Florida. Members of the Louisiana Shrimp Assoc. and businessmen attending the parley recommended to officials present that they investigate the possibility of securing state funds to help shrimp research.

A pilot course at Golden Meadow High School and at LaRose is probably the first of its kind in the nation. This project is receiving the attention of Supt. Shelby Jackson, head of the La. education system, and those attending the meeting expressed hope that such a course would be added as part of the curriculum of other schools in Louisiana.

Lack of funds was declared to be a major concern of the association in carrying out its varied program and the recommendation was made that the boat owners and operators pay a self-imposed levy. No action was taken on this proposal during the open meeting. But it was indicated that it would be further discussed by members of the shrimp industry.

Use Lights to Attract Fish, Crabs in Gulf Exploratory Tests

After a 26-day exploratory cruise in the Gulf of Mexico testing lights, scoop-lift nets, and lampara seines, the U. S. Fish & Wildlife Service vessel *Oregon* returned to port at Pascagoula, Miss.

Mercury vapor and incandescent lamps were used as fish attractors during scoop-lift trials with the mercury vapor lamps more effective for sardine-like fishes in the Gulf of Mexico.

Attraction of crabs by mercury lights was particularly noticeable. On one occasion, hundreds of "Jack Rochester" crabs were taken in the scoop-lift net. Blue crabs in amounts up to one-half bushel were common in most scoop-lift net sets in shallow water.

Small quantities of fish were attracted to the light and taken in the scoop-lift nets; including thread herring, razor belly, Spanish sardine, anchovies, and menhaden.

Two lampara seine sets were attempted on subsurface concentrations of thread herring. Although the fish were completely surrounded and entrapped, they apparently escaped through the wing meshes and head of the seine.

Shrimp Not Affected By Fire Ant Insecticide

Insecticide use in the imported fire-ant program is not endangering shrimp or other Gulf sea life used for food, according to C. C. Fancher, a U. S. Department of Agriculture regional supervisor for the plant pest control division. Fancher said run-off water from streams entering the Gulf does not contain insecticides used for imported fire ant eradication in large enough amounts to affect shrimp. He said no eradication measures of any consequence for the imported fire ant have been employed nearer than 70 miles of the coastal area.

Mississippi Oyster Landings Top 1959

Miss. oyster landings in the Biloxi area for February 1960 totaled 28,038 barrels compared to 3,968 barrels in February 1959. Totaled with the January oyster landings the yield was 64,101 barrels whereas the total landings for the year 1959 amounted to 38,657 barrels.

State Seafood Commission chief inspector, Clarence Canaan has predicted that before the season ends more than 100,000 barrels of oysters will be harvested in Miss. for the greatest production in over 16 years.

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Special Galvanized Fishing Rope, to be precise. We agree immediately that the sad showing made by the non-user of Roebling rope is somewhat exaggerated.

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A Modern 80-Foot Scallop Dragger

with Latest Refinements in Construction and Rigging

The "PROWLER"
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Owned by Capt. A. J. Pedersen & Erlig Moe
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At Gamage's you will find unexcelled facilities for building all types of wooden vessels up to 140 feet, under cover. There are two covered building ways, with overhead cranes for installing machinery.

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BOAT: Tuna Seiner SILVER MINK

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REMARKS
STARR NYLON NETTING praised by Skipper

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NYLON NETTING
all the way!

CAPT. MANUEL PHILLIPS
Provincetown, Mass., owner-skipper, reports the facts:

"850 tons with *only one-third* of our 325 fathom long seine in 1959 made up of Starr Nylon Netting. Without Starr we wouldn't have gotten half . . .

"Other webbing continually tore . . . and we were ashore as many as four days repairing it. But no trouble with the piece of STARR webbing — not even when we caught a whopping 260,000 pounds of tuna in one set . . .

"Next year we are going *all the way* with our entire tuna seine being made up by STARR."

Another in a new series of Starr advertisements direct from the fishermen using Starr Nylon Netting.

STARR NETTING . . . STAR PERFORMANCE

STARR NETS

A. M. STARR NET CO.
EAST HAMPTON, CONN., U.S.A.

Alabama Oyster Harvest Is Five Times Over Last Year

Seafood license and tax records of the Ala. Seafood Division office show a big increase over last year in this year's oyster production for the state. Division officials reported recently that tax has been paid on nearly five times as many oysters in Mobile and Baldwin Counties so far this year as was paid last year.

George Allen, chief of the Seafood Division, said tax has been paid on 44,000 barrels of oysters taken from Mobile County waters this year. The season opened Sept. 1, 1959 and will probably close about the first of May. During the entire season last year, tax was paid on a total of 9,000 barrels in Mobile County. Allen and other division officers said they know more oysters were taken from state bottoms than taxes were paid on, but the increased tax payments indicate a sizeable increase in Alabama oyster production.

The seafood chief said the majority of the oysters taken this year in Mobile County were harvested from four reefs: Middle Ground in Portersville Bay, Buoy Reef in Mobile Bay, Cedar Point Reef and Half Moon in Heron Bay.

Allen said that W. J. Demoran, marine biologist doing research for the division is now searching for seed oyster reefs. The biologist is trying to locate bottoms that are growing seed oysters that may be removed and replanted.

New Aransas Pass Crab Plant Active

The new crab processing and packing plant at Aransas Pass, Tex., began active operation in March with a payroll of approximately 70 persons. This number may be increased to 150 as soon as full-scale operations begin.

Paul L. Willis, the plant's owner, believes that bays adjacent to Aransas Pass will furnish at least 20,000 pounds of live crabs daily, or enough for 2,000 pounds of processed crabmeat.

Gulf Seafood Landings Increase

Seafoods landings at selected ports in the Gulf States for the first two and one-half months of 1960 compared to the same period in 1959 were as follows: headsoff shrimp landings totaled 9.8 million pounds; an increase of 1.1 million pounds. Oyster production of 222,780 barrels is compared with 135,080 barrels last year. Edible finfish at 1.9 million pounds show an increase of .2 million pounds. Blue crabs with a total of 980,000 pounds showed an increase in comparison to 923,000 pounds last year.

Elect Texas Fish Commission Head

At a recent meeting of the Texas Game and Fish Commission, Frank M. Wood of Wichita Falls was elected new commission chairman to replace Herbert L. Fensley of Houston who has served in that capacity during the past six years.

Preliminary plans for the Commission's new building, as authorized by the 56th session of the Texas Legislature, were also announced. One million dollars of Commission funds will pay part of the cost of the $4 million structure. When the building is completed, it will bring under one roof the work now being carried out by the Texas Game and Fish Commission in three separate buildings in Austin.

Two Vessels Sink in Gulf

Two fishing vessels sank to the bottom of the Gulf in Louisiana waters last month. The crews of both sunken vessels, the *Mary Jane* and the *Popeye*, were rescued by passing fishing vessels. The *Mary Jane* went down 65 miles south of Grand Isle and its three-man crew was rescued by the *Billy Boy*. The *Mary Jane* was out of Cut Off, La. The *Popeye* sank in Bell Pass and its crew was picked up by the fishing vessel *D and G*.

National Fisheries Convention to Feature Institutional Market

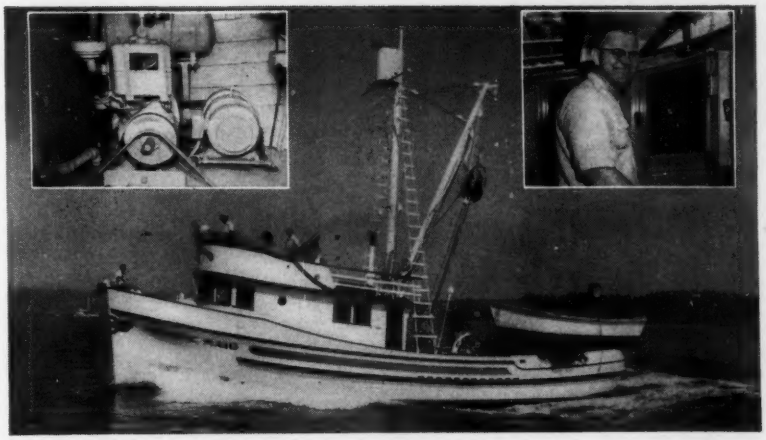
The Fifteenth Anniversary Convention of the National Fisheries Institute to be held at the Hotel Fontainebleau, Miami Beach, Fla., April 29 through May 4, will feature an Institutional Food Day program with guest speakers presenting the "Hidden Assets of Frozen Seafoods." The convention program will also include 3 days of general sessions, committee meetings, a trade show, a Hawaiian luau, Old Timers and Minnows activities, and a dinner dance. Ralph E. Carr, Mid-Central Fish Co., Kansas City, Mo., is president of the Institute.

During Institutional Food Day, Sol W. Geltman, catering manager, Hotel Fontainebleau will talk about the use of seafood in hotel feeding; and Harold E. Gotthelf, general purchasing agent, Howard Johnson's, Miami, will discuss the serving of seafoods in chain restaurants at all levels. Dorothy Johnson, University of Miami, Coral Gables, Fla., will speak on seafoods for use in universities and colleges; Marty Westrich, manager, Morrison Merchandising Corp. of Tampa, Fla., will explain the use of seafoods in chain cafeterias; and C. L. Wienges, Hot Shoppes Caterer, Miami, will tell about servicing airlines with seafoods.

The Institutional Food program will follow the pattern used at last year's convention during Food Store Day—the tennis court-type panel. Each food panelist will make a 5-minute statement of his case, which will be followed by 15 minutes of questions and answers between the panelists and fisheries experts. The audience may also participate. Lewis Goldstein, Liberty Fish Co., Philadelphia, Pa., will act as moderator.

The panel of fisheries experts will be Robert Erkins, Snake River Trout Co., Bulh, Idaho; Richard Kulze, South African Rock Lobster Co., New York, N. Y.; Rufus Littlefield, Seattle Seafoods, Inc., Seattle, Wash.; Robert Levinson, Ocean Products, Inc., Tampa, Fla.; Max Swartz, East Coast Fisheries, Inc., Miami, Fla.; Albert Levy, Washington Fish & Oyster Co. of California, San Francisco, Calif.; I. A. Pass. Independent Fish Co., St. Louis, Mo.; L. R. Alberti, Jr., Alberti's Seafoods, Inc., Chicago, Ill.; Robert Gruber, Fishery Products, Inc., Cleveland, Ohio; and Arthur H. Frohman, L. H. Frohman & Sons, Chicago.

The Long Lines Dept. of American Telephone and Telegraph Co., is sponsoring an exhibit which features a piece of cable, frayed and torn by a trawler. The break disrupted service between the U. S. and France for 6 days, and cost $55,000 to repair. The exhibit is designed to gain the cooperation of trawlermen in protecting ocean cables.



'Olympic Maid's' air-cooled Lister drives a 2KW Onan Generator and a 1½" Barnes self-priming bilge pump through V-belt drive. Skipper Dick Hansen in the wheelhouse of 'Olympic Maid'.

• No cold weather engine problem for Alaska's 'OLYMPIC MAID'

With a Lister AIR-COOLED DIESEL

"Air cooled LISTERS are used extensively by North Pacific commercial fishing vessels for driving generators, pumps and the like", says skipper Dick Hansen of the new salmon purse seiner Olympic Maid, out of Ketchikan. "There's no problem of draining the engine for cold weather, no cooling system pipes necessary. LISTERS are easy to install, very easy to start."

Regardless of whether *you* operate in sub zero weather or at temperatures 100 degrees plus, investigate LISTER'S advantages of versatility, economy and freedom from servicing worries. *Write for interesting data.*

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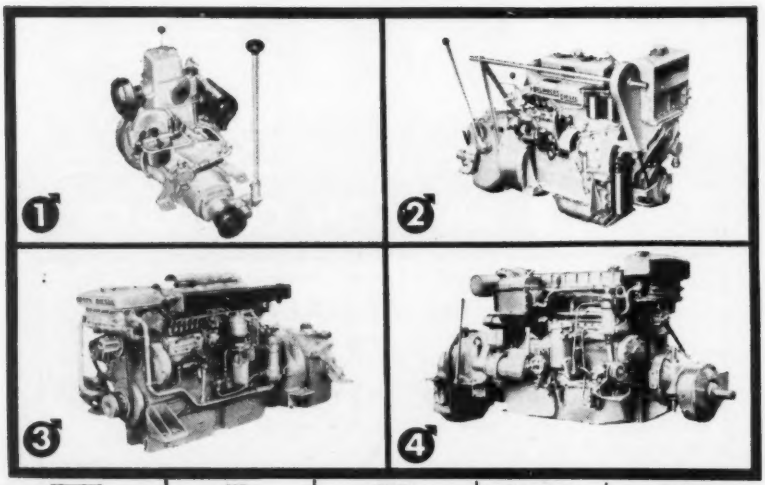

Model	HP	RPM	No. Cyl.	Weight
MD 1	5*	2000	1	300 lbs.
1113 BR	50*	2000	3	1500 lbs.
MD 47	71*	2000	6	1435 lbs.
TIMD 96	185*	1800	6	2205 lbs.

*Continuous rated hp. Direct-injection, 4-cycle diesels.

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GREAT LAKES

Good Smelt Harvest Reports Despite Bad Weather

While commercial lake trout fishermen operating on Lake Superior were striving against weather hazards to secure commercial yields of lake trout and whitefish with poor success, lake smelt netters operating through ice in Michigan and Wisconsin waters were getting liberal yields.

Reports from various districts on fishing conditions—with exception of Lake of the Woods—all say weather conditions have made fishing for preferred species nearly impossible.

Lake Ontario commercial fishermen, for example, had set a few gill nets, but due to the extreme frost, they could not get out to lift them.

Lake Superior winter operations for 1960 have been, for many of the commercial producers—poorer than normal. Fishermen think that due to the mild weather at the beginning of the winter there are less ice cracks. Since fish are usually plentiful in the vicinity of ice cracks, there is no production from fishermen who rely on netting in such areas.

North Channel fishermen were reportedly disturbed by the absence of natural spawning fish which is probably due to the activities of the smelt.

In the Bay de Noc area of Green Bay, hundreds of fishermen were fishing for lake smelt, where commercial netters were reportedly making good lifts. It is noted, however, the bulk of the catches are small fish, and lots of these are difficult to market except to cat food processors.

Ice fishermen in the area say they expect to take their largest catches in April, although Wis. fishermen appear to be getting their heavier yields in March.

Recently a heavy snow storm rendered smelt fishing operations almost impossible for several days in the Green Bay de Noc area of the Great Lakes.

Aside from fairly good smelt fishing in northern waters of Lake Michigan, it was noted that Ill. commercial netters were taking good commercial quantities of rough fish. Several good landings of yellow perch and sheepshead from Lake Michigan were reportedly made.

In certain areas of Lake Huron small numbers of whitefish were seen, according to one fisherman who reported a small showing of whitefish each day in his gill nets in Killarney waters.

Ice fishing in the Saginaw Bay area has been underway but weather

conditions in several instances hampered fishing operations. Generally, catches from Lake Huron were light for practically all species.

Reports from commercial takes from Lake Erie where the spring season recently opened, indicate fairly good catches of perch, sheepshead, and bullheads. Yields in other fish were generally light among the trap netters.

In the lake, however, there are often lots of small undersize smelt. These slip through the larger mesh and therefore are not noted in the catches of the larger species. A number of the fishing tugs on the lake have not set nets, probably due to inclement weather.

Better Rough Fish Use Is Being Urged

Sen. Alexander Wiley of Wis. has urged the U. S. Bureau of Commercial Fisheries to push research on uses of various rough fish in the Great Lakes which are not used as human food.

The senator said research is needed to make proper use of the large supplies of rough fish until the lakes are restocked with lake trout and whitefish.

He urged that the Bureau work on types of equipment needed, market research, and chemical composition of rough fish to determine how they might best be caught and used, and said he was working for funds in the fish and wild life appropriation to pay for such studies.

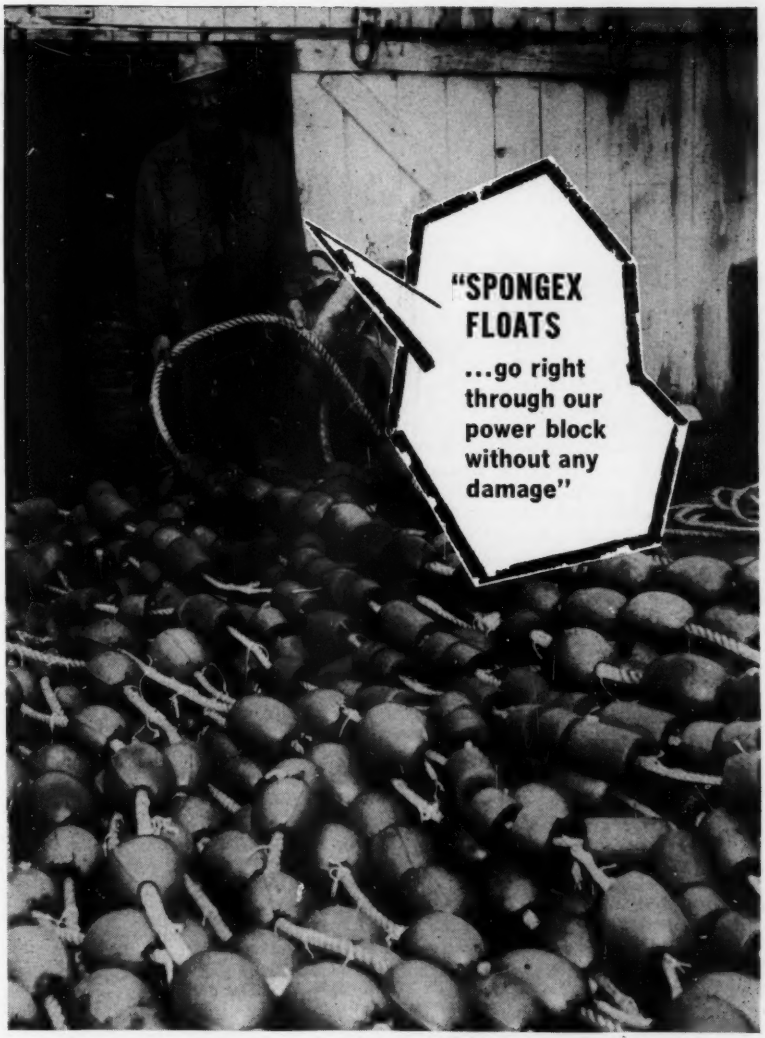
Says "Commercial" Better Name for Rough Fish

C. W. Threinen, administrative assistant in the Wis. Conservation Dept., has suggested that rough fish be called commercial fish to improve their "taste" on the market. "Names have ugly connotations. Not the least of them is "rough" when it refers to fish. People can taste the name," he said.

Freshwater Fish Market Reported Good

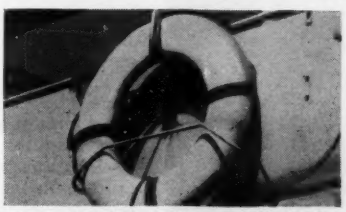
Commercial Great Lakes fishermen have reported that at present the market for freshwater fish, except for smelt which are somewhat plentiful at the moment, is very good. Prices are high for lake trout and whitefish, and good returning prices are available for other preferred freshwater species.

Demand is greater than arrivals in the metropolitan cities to which freshwater fish is generally shipped, and the Canadian supply of trout and whitefish has been somewhat below demand. Fishermen are requested to query receivers before deluging them with oversupplies of any particular species, in order to secure an agreed upon price.



CAPTAIN OF 65-FOOT PURSE SEINER SWITCHES TO B.F.GOODRICH SPONGEX FLOATS... SAYS HANDLING IS EASIER THAN EVER BEFORE

"Three years ago we switched to B.F.Goodrich Spongex floats aboard our 65-foot purse seiner, 'Veteran'," says Captain Vincent W. Skonsie, Co-owner with his brother Antone, both of Gig Harbor, Washington.



B.F.Goodrich ring life buoys *for fishing boats have all the advantages of Spongex floats. U. S. Coast Guard approved and accepted by commercial lines.*

"There's no maintenance with these Spongex floats. They go right through our power block without any damage. Their weight stays the same—no waterlogging—and because less are needed to do the job, handling is easier than ever before," said Captain Skonsie.

All these advantages listed by Captain Skonsie—and still others—are what have put B.F.Goodrich floats on regular and newly converted seiners in fishing fleets everywhere. B.F.Goodrich floats come in 17 sizes, ranging from 3" x 1½" to 6" x 14". For full information, write to *The B.F.Goodrich Company, 192 Derby Place, Shelton, Connecticut.*

Made under Pat. No. 2,737,688

SPONGE PRODUCTS BY B.F.Goodrich

EQUIPMENT and SUPPLY NEWS

New Linen Thread Multiple Knot Netting

Called "Imperial Knot", a new multiple-knot, nylon, salmon gill-netting, priced to compete against the most inexpensively made single-knot, nylon nettings, has been announced by The Linen Thread Co., Inc., Blue Mountain, Ala.

The new netting is now being introduced through Linen Thread distributors in the Pacific Northwest. Its high quality has caused the company to discontinue the production of single-knot, nylon, salmon gill-netting, according to Howard C. Johnson, Netting Dept. manager.

Imperial Knot netting is made in a popular range of mesh sizes for salmon gillnet fishing, and is available in four colors: white or natural—light green—medium green—dark green.

Johnson reported that the new netting is not competitive in quality with his company's "Locknot" and Double Knot salmon gillnettings, but it will provide salmon fishermen with a dependable and durable nylon gill-netting at substantial savings.

New Hancock Shrimp Towing Block

A new extra-heavy, double-lead, towing block for shrimpers is being manufactured by Hancock Marine, 1567 No. Main St., Fall River, Mass. Made of all cast steel with 8" steel sheaves (3¾" wide), the block has offset bowed cheeks to give 5½" clearance.

The firm also makes the block in bollard type with single sheave. A smaller dangle-line towing block is available with 8" x 2¾" sheave having 4" clearance.

Hancock produces lobster and purse blocks of all steel or alloy iron construction. These blocks have 3" diameter sheaves, 1¾" wide; and overall length, excluding the hook, is 6½". The one-ton hook is drop forged and has a safety latch. All steel blocks are galvanized.

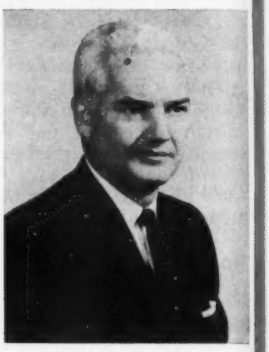
Lister Diesel Operator's Handbook

A new, 215 page, easily read book, concerning the theory and operation of Diesel engines and electrical equipment, is now available from Lister-Blackstone, Inc., 42-32 21st St., Long Island City 1, N. Y.

The book deals with the theory and operation of Diesel engines; also the construction and theory of electrical equipment, each being an integral part of the other. The "Diesel Plant Operator's Handbook" is available for $3.00 plus postage.

Exhibit of East Coast Equipment Corp. at New England Boat Show, featuring Cerlist Diesel, which the firm distributes.

Humphrey Directs Chrysler Marine Sales



William F. Humphrey

The appointment of William F. Humphrey as director of sales, Marine and Industrial Engine, Chrysler Corporation, 12200 E. Jefferson Ave., Detroit 15, Mich., has been announced by William L. Pringle, president of the division. Humphrey, who was formerly director of sales, Hercules Motor Corp., brings to his new position more than 20 years of experience in the sales and service of both gasoline and Diesel engines for marine and industrial applications. Humphrey succeeds L. E. Nelson who has been vice-president—sales of the division. Nelson is re-joining the automotive sales group, Chrysler Corporation.

Auto Engine Now Capitol Gears, Inc.

Auto Engine Works, Inc., 331 North Hamline Ave., St. Paul, Minn., has announced the change of its corporate name to Capitol Gears, Inc. "The change was necessitated by the popularity of the trade name of our gears," said George P. Torgersen, executive vice-president. "Due to the recognition and acceptance in the industry, Capitol Gears, Inc., will better identify the company as well as the products we manufacture," he said. Established more than 50 years ago, the firm now has a complete line of marine gears for engines from 85 to 500 hp.

East Coast Equipment Has Cerlist Diesel

The sales territory for Cerlist Diesels, distributed by East Coast Equipment Corp., 205 Rosemary St., Needham Heights 94, Mass. has been expanded to include the Canadian Maritime Provinces, Quebec, and Puerto Rico in addition to all of New England.

The engine is made by Cerlist Diesel, Inc., Burlington, N. C. and is a 3 cylinder, light weight, high speed engine rated 85 shp. at 3000 rpm. It is of 2 cycle design, loop scavenged, with no valves. Aluminum is used extensively to achieve the low weight of 605 lbs. net with standard accessories, fan to flywheel. It has 170 cu. in. displacement with 4" bore, 4½" stroke and 22:1 compression ratio.

Four other Cerlist models from 55 to 225 hp. will be introduced later this year. The V-8, 225 hp. engine will weigh approximately 900 lbs., fan to flywheel, with the complete marine version of this model weighing 1140 lbs.

The 85 hp. model is well suited to lobster and other smaller fishing boats, as well as for generator power units. An adequate stock of engines and parts is carried by East Coast Equipment, who are in the process of appointing dealers throughout their territory.

John Forrest is president of the East Coast firm, while Marshall M. Dawes is vice president and general manager. Harry A. Bornstein is treasurer, and Michael Gadless is works foreman and supervisor of service. The Company has complete shop facilities for factory-type engine rebuilding to meet the rigid requirements of Government agencies. They are one of the largest dealers for GM 6-71 Series surplus engines in New England and are specialists in GM, International Harvester and Caterpillar repairs and parts. The firm has direct association with All States Leasing Corp. for facilitating all types of financing.

Hartman Transistorized Radiotelephone

Hartman Marine Equipment Corp., 30-30 Northern Blvd. Long Island City 1, N. Y. is offering a new 5-channel, 30-watt, transistorized radiotelephone, which can transmit up to 125 miles. The FCC approved unit has been designed to feature minimum maintenance and negligible power drain. Known as Model 3059, the new radiotelephone may be operated on any 12 volt system.

The radio is pre-tuned at the factory and needs only minor adjustment during checkout, and can not be damaged by reversed battery polarity. It measures 13. in. wide, 9¾ in. deep, and 7¼ in. high, and weighs 10 lbs. The unit is made for easy installation anywhere as is the 8 x 3 x 6 in. remote station which is available separately. Joseph S. Henry is general manager of the firm.

Cooper-Bessemer Realigns Northeast Sales

Following the retirement of L. C. McEwen as Northeast District Sales Manager, Cooper-Bessemer Corp. announces that it will continue to maintain full warehouse and service center facilities at Gloucester, Mass. Robert C. Souza remains in charge of service, and the newly-appointed warehouse manager is Robert O. Stanton.

Cooper-Bessemer also announces that the Gloucester facilities and the area served are now incorporated with the New York District to comprise a new and expanded Northeast District, with district headquarters in New York City, under District Manager, R. W. P. Johnson.

Hoy Represents Glass Plastics in Florida

Andy Hoy has been appointed Florida sales representative for Glass Plastics Corporation of Linden, New Jersey.

He will handle that Company's line of Fiberglas and plastic products for covering, repairing, and protecting boats, including Boat-Armor "Blu-Sheen" Fiberglas Cloth and Super Resin, Titan-Tite Epoxy Resin, and Tuff Epoxy paints.

Hoy is well-known to marine dealers in Florida and has had many years of experience in the field. He makes his headquarters at 10225 S. W. 111th St., Miami.

Andy Hoy

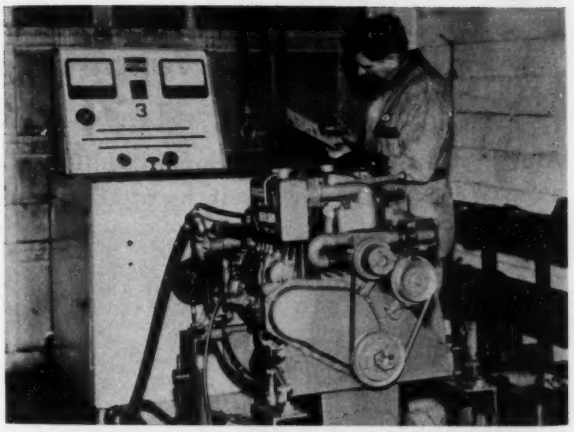
Pearce-Simpson Introduces New Antennas

Distribution of a completely new line of marine radiotelephone antennas, the result of two years of cooperation between the Shakespeare Co. and Pearce-Simpson, is announced by Chrysler Marine & Industrial Engine Division, the exclusive distributors.

Three models are available in the new line: 10½-ft., 13-ft. and 18-ft. deluxe. The exclusive Shakespeare process of resin impregnated fiberglas is used.

Features of the line include: maximum life assurance by completely imbedding electrical conductors in plastic to make corrosion or moisture penetration impossible; chromium-plated metal fittings made of brass to assure long life; plastic tip provided on whip eliminates corona effect; and external lead-in connections built into the chrome brass threaded base of antenna to insure positive connection.

The model 63-4 (10½-ft.), is designed for single support installation in small craft, and ease of raising and lowering antenna with one hand. The 13-footer, model 63-1, is constructed in two parts, whip and mast, which screw together. Optional fixed or folding hardware is available for this medium craft model.



A Barr marine Diesel going through the pre-shipment, 29-point, dynamometer test. 23 points concern the engine and 6 relate to the reverse and reduction gear. Engine check includes fuel injector timing; thermostat; oil pressure; hp. output; freedom from leaks in all lines; freedom from excess noise, vibration, and smoke; valve adjustments and idling smoothness. Reverse-reduction gear tests cover oil pressure, heat, noise, and backlash. Test sheets of each individual engine are filed permanently by the Barr Marine Products Co.

Danforth Course Protractor Easy to Use

A new course protractor, developed by Richard S. Danforth, inventor of the lightweight-type Danforth anchor, and marketed through Danforth Anchors, Portland, Me., is designed to eliminate the common error of applying deviation in the wrong direction.

In addition to eliminating the possibility of this dangerous error, the Danforth Course Protractor is made to do away with the complicated arithmetic, or trial and error formerly necessary to apply deviation in order to arrive at a correct compass course.

Compact, and constructed of clear plastic, the patented Danforth Course Protractor embodies a new concept of applying deviation and variation within a matter of seconds. No mental or written arithmetic, or reference to deviation tables or cards are required.

Elliot Inflatable Liferafts Approved

Coast Guard approval has been granted to Elliot inflatable liferafts, made in Sausalito, Calif., and distributed in the U.S. by C. J. Hendry Co., 27 Main St., San Francisco, Calif.

Approval has been completed on the 4, 6, and 10 man sizes, and is pending on the others. Certified craft under 100 gross tons may replace all life boats with inflatable rafts. Vessels between 100 and 500 gross tons may replace all but one lifeboat with the compact liferafts.

Elliot rafts range in size from 4- to 25-man capacities. The 2 tubes that furnish floatation are built one above the other. If one should leak the other supplies adequate support. Archtubes hold up a canopy which has an outer cover and inner lining. The floor may be inflated for dead air insulation in cold weather. Entrances may be completely or partially closed. When not in use the rafts are quite compact, as for example, the 6-man Elliot raft which weighs 71 lbs., and packs into a 32" x 18" roll.

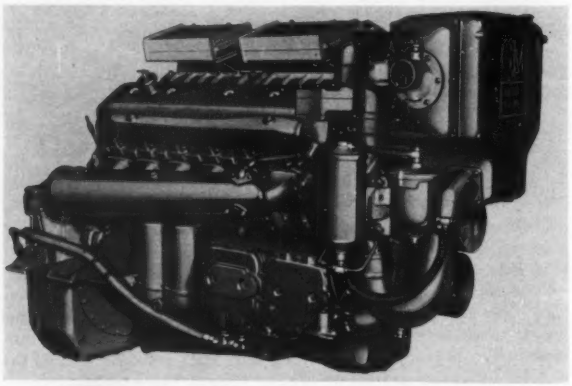
Elliot rafts are equipped with hydrostatic release, so that if a raft cannot be released manually in an emergency, it will release itself when the ship submerges. The raft inflates itself, erects the canopy, streams a sea anchor, and lights a beacon. Emergency rations and equipment are secured inside.

In accordance with Coast Guard requirements, inspection and maintenance depots have been staffed with factory-trained personnel at important seaports—5 on the East Coast, 3 on the Gulf, 4 on the West Coast, and 1 at Chicago.

CAPTAIN JOSEPH SILVA'S

"CR & M" now repowered with the new GM 12 V-71

Marine Diesel for greater dependability and safety and power—335 cont. hp at 1800 rpm.



This new 12 cylinder GM 12 V-71 Diesel is more powerful, more compact and economical.

GM Marine Diesel engines supplied by—

HUBBS Engine Company

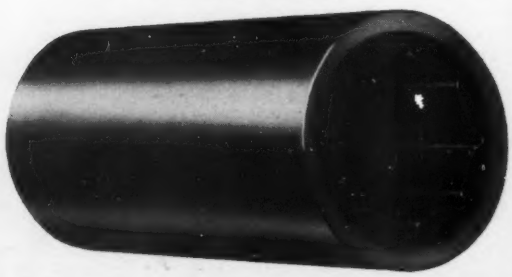
1168 Commonwealth Ave., Boston 34, Mass.
BEacon 2-1322

Branch: 141 Main St., South Portland 7, Maine SPruce 4-3466

B.F.Goodrich

***Cutless* Bearings**

For Propeller Shafts



Soft rubber, water lubricated, Cutless bearings give years of trouble-free service on fishing vessels. Resist heat, oil, and wear. Quiet and protect shafts too. There is a size and type to fit your boat.

Available at Boat Repair Yards and Marine Equipment Dealers.

Lucian Q. Moffitt, Inc.

AKRON 8, OHIO

Engineers and National Distributors

BOAT CATCHES

For Month of March

Hailing fares. Figure after name indicates number of trips.

GLOUCESTER (Mass.)

Agatha (1)	25,000	Magnolia (2)	320,000
Agatha & Patricia (2)	37,000	Marianna II (2)	17,000
		Mary Ann (5)	39,000
Baby Rose (3)	195,000		
Bonaventure (1)	100,000	Natale III (5)	39,000
Cigar Joe (3)	11,000	Ocean Wave (3)	120,000
Curlew (2)	320,000	Olympia (4)	56,000
Dolphin (1)	20,000	Philip & Grace (2)	48,000
Doris F. Amero (3)	25,000		
		Regina Maria (2)	92,000
Estrela (2)	380,000	Rhode Island (2)	23,000
		Rosalie S. (4)	27,000
Flow (1)	180,000	Rose & Lucy (3)	12,000
Frances R. (2)	16,000	Rosemarie (3)	24,000
		Rosie & Gracie (4)	45,500
Gaetano S. (1)	90,000		
Golden Dawn (1)	5,000	St. Anna Maria (1)	3,000
Grace & Salvatore (2)	130,000	St. Cabrini (2)	11,000
		St. Joseph (3)	49,000
Holy Family (2)	120,000	St. Mary (2)	16,000
Holy Name (3)	105,000	St. Nicholas (1)	40,000
		St. Peter (3)	40,000
Ida & Joseph (3)	16,000	St. Peter III (5)	25,500
Immaculate Conception (3)	16,000	St. Rosalie (3)	35,000
		St. Terese (5)	28,500
Jackie B. (2)	6,000	Salvatore & Grace (3)	25,000
J.B.N. (1)	2,000	Sebastiana C. (3)	53,500
Jeanne D'Arc (1)	25,000	Serafina N. (4)	30,000
Jennie & Lucia (2)	46,000	Serafina II (4)	59,000
Judith Lee Rose (1)	220,000	Sunlight (2)	310,000
Kingfisher (1)	210,000	Theresa M. Boudreau (2)	407,000
Lady of the Rosary (4)	64,000	Villanova (2)	440,000
Little Flower (1)	5,500	Vincie N. (3)	29,000
		Virginia Ann (3)	12,000

WOODS HOLE (Mass.)

Arnold (4)	23,000	Papoose (1)	3,900
Cap'n Bill III (2)	34,300	Samson Joy (1)	900
Curlew (5)	25,600	Two Brothers (1)	400
Franora (4)	20,200	Robert Joseph (2)	14,100
Jennie M. (1)	900	Southern Cross (1)	6,400
Madeline (3)	9,300	Three Bells (1)	4,200
Magellan (3)	9,100	Trina Lea (2)	5,900
Minkette (3)	12,500	Viking (1)	1,900
Morning Star (1)	1,200		

NEW BEDFORD (Mass.)

Althea (3)	53,000	Major J. Casey (4)	78,000
Anastasia E. (1)	22,300	Marie & Katherine (2)	35,900
Annie Louise (1)	8,900	Martha E. Murley (2)	14,500
Annie M. Jackson (5)	59,700	Mary E. D'Eon (2)	18,400
		Mary J. Landry (3)	54,500
Barbara M. (3)	37,800	Mary Tapper (1)	21,700
Brant (2)	57,500	Midway (4)	61,500
		Molly & Jane (3)	35,400
Cap'n Bill II (1)	34,500		
Carl Henry (2)	40,500	Nautilus (1)	36,500
Catherine & Mary (3)	73,500	North Sea (2)	40,000
Charles E. Beckman (3)	20,500		
Christina J. (3)	48,700	Pauline H. (3)	224,000
Christine & Dan (2)	29,500	Pearl Harbor (3)	90,500
Comber (2)	22,000	Phyllis J. (2)	17,500
		Porpoise (3)	49,700
Eugene H. (3)	51,000		
		Richard Lance (2)	43,000
Falcon (4)	91,800	Roann (2)	16,000
Friendship (3)	46,900	Robert Joseph (2)	38,600
		Roberta Anne (3)	62,800
Gannet (2)	62,600	Rush (3)	56,400
Glen & Maria (1)	11,000		
Growler (3)	43,200	Sea Gold (2)	23,000
		Sea Ranger (3)	69,500
Harmony (2)	26,500	Shannon (2)	38,200
Hope II (3)	72,300	Sharon Louise (3)	53,500
		Skipjack (3)	83,000
Invader (2)	40,700	Smilyn (2)	26,500
Ivanhoe (2)	28,400	Solveig J. (2)	98,200
		Sunbeam (2)	40,500
Janet & Jean (2)	29,900	Susie O. Carver (2)	17,800
Joan & Ursula (2)	20,000		
John G. Murley (2)	158,000	Teresa & Jean (2)	39,500
Julia DaCruz (1)	14,000	Two Brothers (1)	7,700
Katie D. (2)	155,700	Val T. (2)	36,500
		Valiant Lady (4)	78,600
Libby (1)	41,500	Venture I (2)	21,500
Lorine III (2)	32,500	Villa-Riall (2)	56,300
Louis A. Thebaud (3)	24,400		
Lynn (2)	18,000	Whaler (2)	31,800
		Whaling City (2)	48,000

New Bedford Scallop Landings (Lbs.)

Aloha (3)	34,400	Lillian B. (2)	21,200
Amelia (2)	22,300	Linus S. Eldridge (3)	33,600
		Lubenray (1)	10,000
Babe Sears (1)	11,200		
Baltic (3)	24,400	Malene & Marie (2)	22,400
Barbara & Gail (2)	20,200	Mary Ann (3)	33,600
Bright Star (3)	29,700	Mary J. Hayes (2)	22,400
Camden (3)	33,600	Nancy Jane (2)	22,400
Catherine B. (1)	10,500	Neptune (3)	35,600
Catherine C. (3)	33,600	New Bedford (3)	35,600
Charles S. Ashley (3)	35,600	Newfoundland (3)	34,600
Clipper (3)	28,900	Noreen (3)	35,600
Dartmouth (2)	23,800	Pelican (2)	23,400
Debbie & Jo-Ann (1)	11,200	Polaris (1)	12,200
		Prowler (3)	32,600
Edgartown (2)	24,400		
Elizabeth N. (2)	23,400	Ruth Lea (3)	33,600
		Ruth Moses (3)	34,600
Flamingo (2)	23,400		
Fleetwing (3)	35,600	Sandra Jane (3)	35,600
Florence B. (3)	35,600	Sippican (4)	48,800
		Snoopy (3)	35,600
Geraldine (3)	35,600	Stanley B. Butler (3)	35,600
		Stanley M. Fisher (3)	35,600
Ike & Jens (3)	36,600	Tocsin (2)	15,900
John Michael X (2)	23,700	Ursula M. Norton (2)	22,400
Josephine & Mary (2)	22,400		
Kingfisher (2)	22,400	Vivian Fay (3)	33,600
Laura A. (1)	14,800	Wamsutta (1)	6,500
Lauren Fay (1)	11,400		

PORTLAND (Me.)

Alice M. Doughty II (4)	131,800	Mary & Helen (2)	4,400
Ariel (2)	3,500	Mary & Jennie (7)	9,600
Challenger (1)	1,900	Ocean Life (1)	295,000
Crescent (1)	2,100	Quincy (2)	391,000
Dorchester (3)	412,000	St. George (2)	415,000
Dorothy & Ethel (3)	27,500	Surfman (2)	2,300
Elinor & Jean (5)	25,800	Theresa R. (4)	190,000
Gulf Stream (4)	353,000	Vagabond (5)	70,500
Kennebec (4)	58,000	Vandal (3)	60,500
Lawrence Scola (3)	8,700	Vida E. II (5)	23,600
Lucille B. (1)	2,500	Wawenock (2)	485,000
Maris Stella (3)	132,000	Winthrop (2)	403,000

Scallop Landings (Lbs.)

Abram H. (2)	27,000

BOSTON (Mass.)

Agatha (2)	85,200	Mary & Joan (2)	192,000
Agatha & Patricia (1)	90,800	Mary Rose (2)	137,700
Arlington (2)	332,800	Medan (3)	300,300
Atlantic (3)	231,800	Michigan (2)	270,400
		Minnie (2)	369,700
Blue Waters (1)	74,000	Mother Frances (3)	180,300
Bonaventure (1)	73,100		
Bonnie (3)	441,000	New Star (3)	355,100
Buzz & Billy (2)	60,500	Notre Dame (2)	87,900
Cambridge (3)	480,200	Ohio (3)	303,800
Caracara (2)	131,200	Olympia La Rosa (3)	84,800
Carmen & Vince (2)	129,800		
Charlotte M. (2)	154,900	Pam Ann (2)	233,000
Clipper (2)	41,600	Patty Jean (2)	292,500
Columbia (2)	153,800	Phantom (2)	362,700
Comet (3)	411,400	Philip & Grace (2)	195,300
		Pilgrim (2)	144,700
Dolphin (2)	130,200	Plymouth (2)	192,900
Eagle (2)	193,200	Racer (2)	456,000
Emily H. Brown (2)	155,000	Red Jacket (2)	384,800
Ethelena (2)	106,800	Rosa B. (2)	259,900
		Rosie C. (1)	20,600
Flying Cloud (2)	492,000		
Four (2)	207,200	St. Angelo (1)	26,400
		St. Marco (1)	50,900
Glenn (2)	187,400	St. Nicholas (2)	184,700
Grace & Salvatore (1)	65,700	St. Victoria (1)	63,300
		Swallow (1)	129,100
Hazel B. (2)	135,400		
Heroic (2)	204,500	Terra Nova (3)	348,300
		Texas (1)	69,800
Jane B. (2)	153,500	Thomas D. (3)	94,100
J. B. Junior (2)	262,000	Thomas Whalen (2)	222,500
Jeanne D'Arc (2)	126,200		
Joseph & Lucia (1)	74,500	Villanova (3)	85,300
Josephine P. II (1)	8,800		
		Weymouth (2)	230,000
Leonard & Nancy (3)	62,400	Wm. J. O'Brien (2)	305,400
		Winchester (3)	354,000
Magellan (1)	35,900	Wisconsin (3)	571,700
Manuel F. Roderick (2)	189,600		

Scallop Landings (Lbs.)

Florence & Lee (2)	29,400	Laura A. (2)	29,200
		Lauren Fay (1)	10,000
Hilda Garston (2)	32,300		

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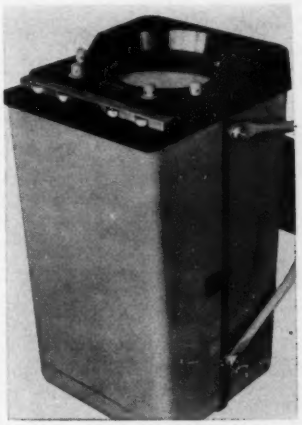

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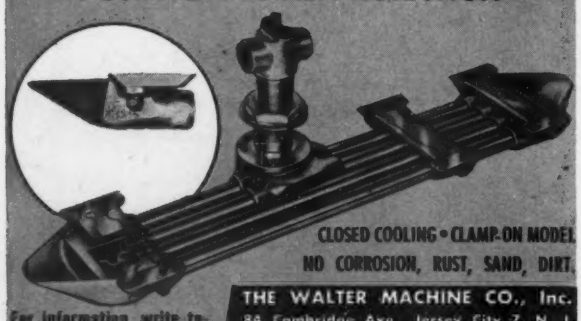

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Evelina M. Goulart (3)	114,000	Sandra & Jean (3)	82,000
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Beatrice & Ida (2)	18,000	Muskegon (2)	12,700
Enterprise (3)	33,000	Norseman (1)	9,000
Ida K. (1)	11,000	Pelican (1)	5,800
Maridor (1)	9,000	Sunapee (1)	10,000

ROCKLAND (Me.)

Araho (1)	34,000	Mabel Susan (2)	7,500
Brighton (4)	287,000	Ocean (2)	340,000
Elin B. (4)	55,000	Squall (1)	120,000
Flo (3)	39,000	Storm (1)	280,000
Helen Mae II (3)	29,000	Surf (2)	285,000
John J. Nagle (3)	184,000	Tide (2)	320,000
Little Growler (4)	59,000	Wave (2)	380,000
Louise G. (3)	19,000		

Scallop Landings (Lbs.)

		Pocahontas (2)	22,000

Fishing Boat Upkeep

(Continued from page 9)

It is my personal opinion that galvanized-wire standing rigging is a poor economy and that the additional cost of employing stainless rigging is repaid time and time again in the long useful life of the average vessel or boat.

Prevention of chafe of wires or manila on the various parts of the vessel is money well spent, for it is far cheaper to fit chafing strips than it is to replace heavy parts of the vessel's structure due to excessive chafe.

I firmly believe that economizing on quality and size of electric fittings and wire aboard a workboat is very poor procedure. Only the best electrical materials should be used. Electricity at sea has a tough row to hoe under the best of conditions, so it is advisable to give it all of the breaks possible. A little time and money spent in a good electrical installation featuring accessibility, good wire, and good fittings made for the job, will always pay good dividends, whether the workboat is a 20 ft. launch or a 150 ft. tug. Every possible attempt to obtain freedom from trouble under trying conditions is well worth while.

Owners of workboats are quite apt to be careless about minor deck leaks, leaks around deckhouse windows and the like, provided the leaks do not cause discomfort in the living quarters. They do not seem to realize that they are killing their boat with slow poison for lack of a little attention. This coupled with carelessness in regard to proper ventilation in good weather is really lethal as far as a boat is concerned.

Seldom is enough money spent for fitting any type of ventilating provision on workboats comparable to that on a well designed yacht, and yet it is equally or more important, because the owner of the workboat must have his boat to earn his living and can less afford replacement or repairs. Proper ventilation facilities are a small part of the cost of any boat, and yet one sees many workboats with a complete disregard of this important feature. Ventilation fittings are on the market, and if none are found that are quite suitable, then they can be made to fit the particular situation at no great expense.

I have noticed ashore as well as afloat that the large owners of equipment whether it be workboats, trucks, or road building machinery, generally take better care of their equipment than do the owners of individual pieces of equipment (the small operators). The reason is not that the big outfits can better afford it, as the small owner is apt to think, but rather that the big operators, through their greater experience, realize that they cannot afford neglect and improper maintenance.

Controllable Propeller on Trawler

(Continued from page 14)

makes every part of the propulsion system readily accessible and convenient. Drive pulleys for the main generator and air compressor are directly connected at the front end between the engine and the deck winch drive gearing and 300 hp. Airflex winch clutch.

In addition to the propulsion unit, starting air compressor, main generator and winch drive mechanism, the engine room contains an emergency stand-by motor driven air compressor, and a Hercules, 6-cylinder, 25 kw. Diesel-generator set.

The fuel transfer pump is equipped with audible safety signals, as are the main engine and propeller control oil systems. A panel board in the pilot house mounts an engine tachometer and separate oil pressure manometers for the main engine lubricating system and the propeller control mechanism.

Five fuel tanks have a total fuel capacity of 5600 gallons, or enough for approximately 13 days of full speed operation. Mobil fuel and lubricants, supplied by Trawler Oil Corp. are used on the vessel. Wire rope, mending twine and rounding rope are furnished by Stone & Forsyth Co.

The job of removing the old engine, installing the new engine and propeller unit with hydraulic controls, and replacing the engine room plating, main deck, pilot house, and other superstructure was carried out by Shawmut's shore engineers and work crew. Steel fabricating for the engine bed and miscellaneous mountings in the engine room and on deck was handled by V. S. Croce, who also supplied all necessary welding service.

A tribute to the care and foresight under which the Shawmut fleet operates is the fact that a full set of three propeller blades is carried aboard the *Atlantic*. Since each blade is independently replaceable, any damage or misfortune occurring while under way can be repaired easily at the nearest port, with very little lost time and no danger of losing a valuable catch.

Pen boards in the fish hold of the *Atlantic* are of ribbed Kaiser aluminum. The use of this material eliminates semi-annual painting required for wooden boards, simplifies cleaning, and reduces weight and weight fluctuation. Wooden boards weigh 8 lbs. dry and 14½ lbs. wet, while aluminum extrusions have a constant weight of 5.4 lbs.

Navigating equipment aboard the *Atlantic* includes White spherical compass, Raytheon Fathometer and Atlas-Werke fish finder, RCA direction finder and radiotelephones, and Sperry loran.

The *Atlantic* was built by Bethlehem Shipbuilding Corp. at Quincy, Mass. in 1934. Other trawlers in the Shawmut fleet are the 110-footers *Plymouth*, Capt. Michael Daley; *Thomas Whalen*, Capt. Allen Foote; *Weymouth*, Capt. Stephen O'Reilly; and the 130' *William J. O'Brien*, Capt William Canning.

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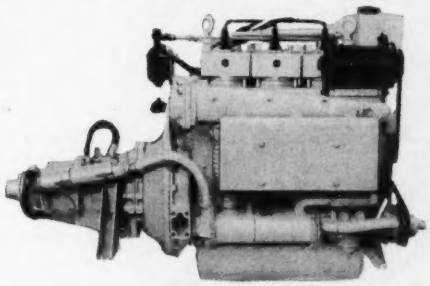

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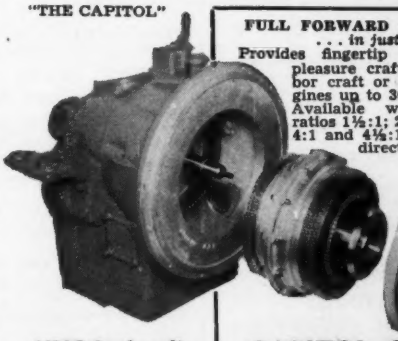

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FOREIGN BAILINGS

TUNA FRESHNESS may be determined by a new method discovered during Japanese studies of the deoxidizing enzymes in fish, which revealed for the first time the reason for the existence of the dark lateral muscle tissue in migratory fish.

The migratory fish are much more active than the sedentary fishes, and in them the dark lateral muscle tissue compensates for this additional activity.

When the fish dies, the action of the enzymes decreases. From the degree of this decrease the amount of time the fish has been dead can be determined and this can be used in measuring the freshness of the fish.

It is reported that the measurements by this method can be made in about five minutes.

MORE VERSATILE BOATS for Norway are advocated by the Fisheries Minister as result of winter herring fishery failure. A switch from purse-seining to trawling, with larger engines and gear, would permit year-round operation. Open sea fishing would lessen present dependence of schools reaching coastal waters.

AIRCRAFT CARRIERS are to be used as factory ships in England. Behind the venture is a firm of shipbrokers and managers.

Helicopters will be used to transfer catches from trawlers to the mother ships, which will make four 90-day round trips a year. On board the mother ships the fish will be quick frozen and sold to distributors on a contract basis.

Fifty trawlers will be required to service each carrier. In addition to acting as factory ships, the carriers, each with a complement of 425, will act as servicing ships supplying the catching vessels with fuel, ice and other requirements.

DEEP-SEA, SALT-COD FISHERY revival program of Newfoundland's provincial government took its first step recently when a modern 66-ft. fishing craft slipped from her cradle into the waters of Mortier Bay.

The government plans to launch another vessel shortly, also fitted with the latest navigational aids and fishing equipment. The vessels will form the nucleus for a fishing fleet that will harvest coastal waters and the high seas.

Their catch will be processed at a new fish plant at Harbor Breton on Newfoundland's south-west coast, the only one in the province to handle salt fish exclusively.

A NOZZLE RUDDER with a built-in propeller has been developed by a Norwegian shipyard for a new type stern trawler which has been tank tested.

At low speeds, the novel combination system provides 30 percent more thrust than a propeller alone, and better steering than a conventional rudder.

ELECTRIC LIGHTS are being used commercially with different methods by the Union of Soviet Socialist Republics in the Caspian, Black and Okhotsh Seas. Russians are netting 200,000 metric tons of sprat a year in the Caspian Sea by this method alone.

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If your signal lasts longer than two weeks, go to your physician. Give him the chance to give you the chance of a lifetime.

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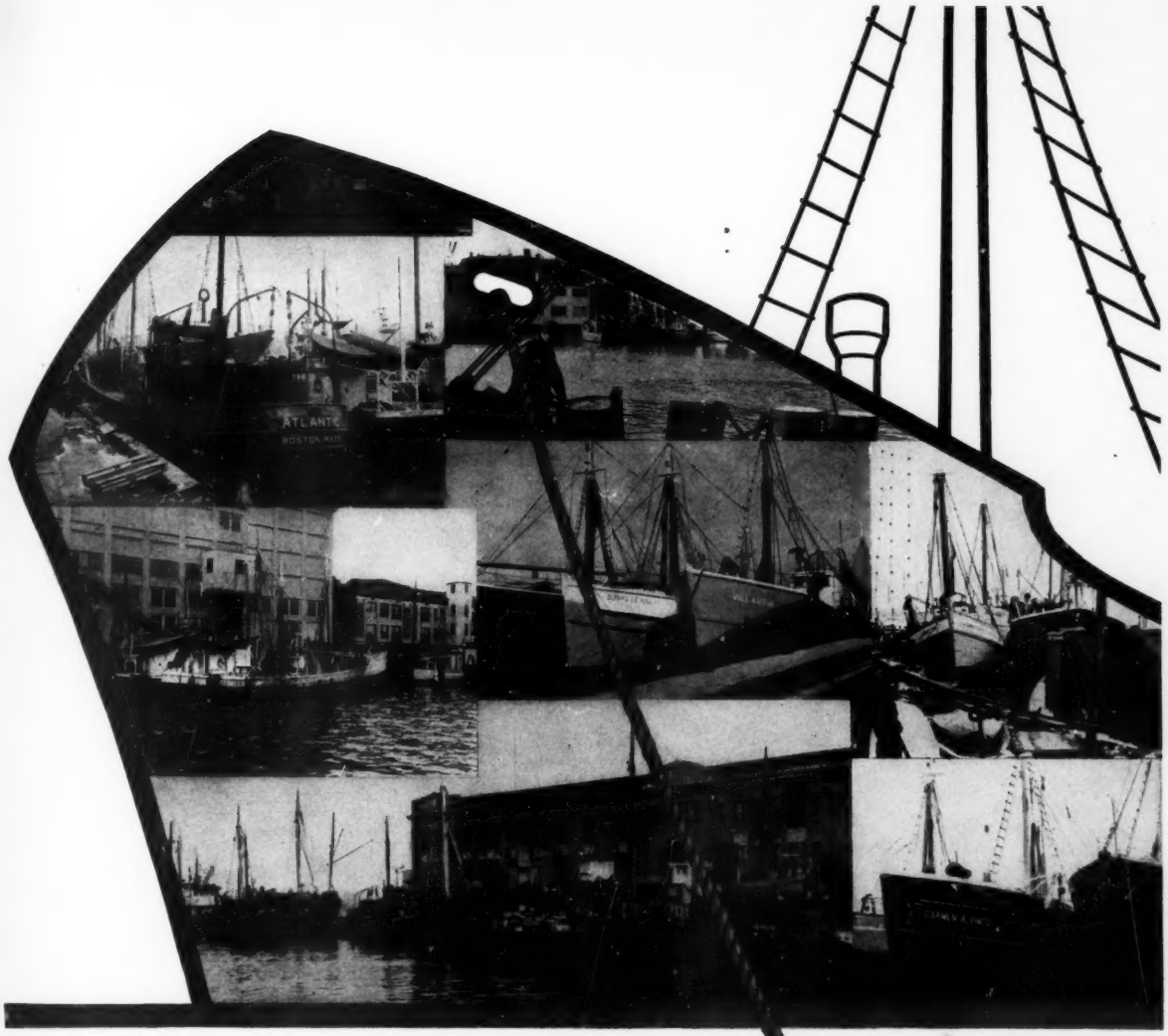

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